THE SAILORMAN

#30

June 1982

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SMALL ADS FREE TO PCA MEMBERS

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THE SAILORMAN

A WORD IN YOUR EAR

First a thank you to all the members who have helped with my education so far. My ride along the South Coast in March convinced me that British Industry in not dead. It is alive and well and building boats. Why are they all pointing South? Is there something I should know?

Subscriptions, should they go up? Well postage has, printing is likely to. Some talk of more issues of Sailorman, even more subs. The expense sheet on page 12 of the Mini Sailorman will tell you a story. By the way .....

Have you sent in your Subscriptions yet?

August Bank Holiday. A Choice of venues. Milford Haven or Millbrook Plymouth. For Milford Haven contact the Secretary. For Millbrook contact Guy Barron, Court Barton, Newton St Cyres, Exeter, Devon or Peter Bousfield, Hilbrooke, Middlewood, North Hill, Nr. Launceston, Cornwall. See South West area membership list. But before all that a meeting in Denmark, Korshavn July 23 - 25. Details from Jannik Cortsen, Bakkely 26 DK – Munkebo, Denmark.

Have your fixed all those irritating little leaks? Cured that problem with the heads, got a new burner for the stove at long last, ready to sail? You now have a realy dry comfortable boat? Good, I have never been out in a Polycat yet, when do we sail?

Psst! Want to buy a cat? or sell, Norman Ellis is down there on the I. of W. don't forget S.A.E. Hey those Solent Ferries got propulsion at each corner any one tried it with a Wharram?

How about a post card or even some photos, where did you sail, where did you go and who did you meet? Who's nosey?

If you are in the London area during the winter months come along to the TABARD pub First Tuesdays in the month starting 5th OCtober. Films and talks are arranged jointly by A.Y.R.S. and M.O.C.R.A. The Tabard is by Turnham Green Underground Station P.C.A. members are welcome to partake.

There is a dreadfully lound silence from the majority of area secretaries is nothing happening or doesn't anyone tell you either?

Cartoons by Stewart Courtnell, not a member but I am working him, he is also responsible for categorising definitions.

We have a great publication, "In the Wake of the Sailorman". Buy one from a friend if you have one already, if not you had better order two. One for you. I would like to compile a pile of those mistakes that cost time and money and temper, a sort of how not to do it booklet. If you are shy, anonymous contributions are welcome. Like the hull left out that the ducks took to until the sides gave way under the weight of water, no resin in the hardner, see easy isn't it, how to make two hulls, epoxy over cold wet wood, the outer hull will be a bit flexible.

A lot of these problems could be avoided on your second boat, make one of the new car top 'TIKIA' designs, handy to take to rallies, they are only fourteen foot you can build in your living room, the hulls aren't very wide.

If you enjoy reading the Sailorman, thank each other it's your contributions that fill the pages, then thank the Printers, particularly Joe Smith. I had to say that, he is bigger than me. If you don't like it you can blame me, but whatever, don't keep it to yourself, air your views, they might even be printable.

I have no copy whatsoever for the next issue so get stuck in, I charge double for writing it all myself.

Are there any builders in the Leeds area or skippers who need crew? Don Goode from Leeds has just phoned asking about a building/sailing syndicate or part ownership, contact him at 37, Ayresome Terrace, Leeds, LS81 BH or phone Leeds 662443. He is a new member of the P.C.A. with little sailing time in but years of diving experience. A useful crewman to have along, think of that lost anchor.

To give you plenty of time to get your thinking camera dusted off the date to remember is February 21st 1083. Colour or monochrome prints on the theme of dinghy sailing, minimum size 5" x 7", maximum 10" x 8". The prizes for the R.Y.A. London Dinghy Exhibition Exhibition Photographic Competition, £25 each for the two winners, colour or black and white. A NEW competition, a cartoon on the subject of dinghy sailing, two prizes one for over 16 and one for under. £25 each. Details from Peter Waring, Royal Yachting Association, Victoria Way, Woking, Surrey GU21 1EQ. Telephone Woking 5022.

Going to Portugal or Spain this year? Charter on board a NARAI Mk iv. Contact Wonter Eichelsheim, "Sun Sail" Yacht Charter, Het Laagt 82, 1025GJ Amsterdam, Holland.

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Jim's Column

Do other readers of the 'Sailorman' get the same restless feeling as I do in the first days of Spring?

For the first time since the disastrous move to Ireland in 1976, things seem to be going right: several articles being published on the advantages of the Wharram catamarans (the second-hand prices seem to be rising, too) – new designs taking off – the possibility that we may get a site for a Wharram Sea-Base in Truro, Cornwall – even our bank manager visited the office, saying: "Of course, you know where to come for financial assistance!"

All this suddenly seems superficial on reading a letter from Henk and Ginny de Velde of the Dutch ORO 'OROWA' which I have just received. They have sailed from Easter Island to Sala y Gomez and back, and then via Pitcairn to Mangareva, where they are 'holed' up. 'Holed' up being the operational word, for OROWA was dropped from a height of 1½m (4'6") on being hauled out ashore for a minor repair. She now needs a major repair!!

Still, if one has to work on a boat, it is better in Mangareva than in Milford Haven. I find myself like any prospective builder dreaming of my new boat for far-off sailing. Of course – like any other Wharram dreamer's – it will be in some ways quite different from other Wharram offshore catamarans.

I have come to the conclusion, that building the hulls is exciting, joining them together and putting the decks on is like being on the edge of sailing. It is that horrible grind of building and fitting out the cabins that wears one down – well,it does me.

On the new "off the beach boats", the TIKI 21 and the PAHI 26, there is no cabin furniture. These boats are camping boats. Clothes and personal gear are stowed in duffle bags.

'Bunks' are camping mattresses unrolled on the flat floor that runs from one end of the cabin space to the other. Headroom in the hulls is kneeling or sitting cross-legged. In harbour, you have headroom on the deck under a permanently fitted hooped deck-tent that swings up like a pramhood.

Cooking is done on a camping stove. This is the way that I will be sailing this year on my PAHI 26.

In Holland, recently, I stood in the shells of a PAHI 42, the CAPTAIN COOK. It was there, that the thought first came to me. If they could finish the inside of the boat on the PAHI 26 ideas, they would be sailing this year, not next. I mentioned this idea to the builders, and they looked at me as if I had gone mad, for they were looking forward to their cabin furniture and interior work.

But, have I gone mad? – I mean more than usual? If we use a boat for a sea-going home, which is what so many of the designs are for, then we need the image of a home in tables, chairs and beds. On the other hand, if we use the boat for 'sailing only', then we could omit the home furniture aspect. This attitude, along with the use of epoxy resins, could result in a much faster building time.

Wade Doak is having his new book 'Dolphin, Dolphin' published in England at the end of March (see details below). This book, as yet unread by me, is about his attempts to communicate in the open sea around New Zealand with dolphins by slipping over the side of his RAKA to swim against them.

Just published in Britain is 'The Aquatic Ape' by Elaine Morgan (see below). This is the theory by Sir Alister Hardy, that Man has evolved in the way he has, by being at some time in his pre-Homo Sapiens development aquatic, or at least semi-aquatic.

Books like these can explain why we are going to such efforts to build these boats. Of course, I don't really need these books. I have sailed along tropical beaches – even if they are the well used Caribbean ones – and I am going to sail there again. It will be a low, sleep CAPTAIN COOK type boat. I must get going before I get too old and stiff to sit cross-legged.

Bibliography:

Wade Doak 'Dolphin, Dolphin' 1982 Hodder & Stoughton £13.95

Elaine Morgan 'The Aquatic Ape' 1982 Souvenir Press, Ltd. £7.95

Horace Dobbs 'Save the Dolphins' 1981, Souvenir Press, Ltd. £7.95

RUTH WRITES

Dear Editor,

As I think members might like to see what our stand at the London Boat Show looked like, I enclose a photo herewith.

I also wondered whether members who received their plans some time ago and do not know of the existance of our various books and papers might be interested in them. I, therefore, enclose our pricelist of these items, which you, perhaps could also squeeze in somewhere.

I have just returned – well last Monday – from a visit to the 'Beaulieu Boat Jumble' which took place on April 4th at Beaulieu in the New Forest. I met quite a few of our builders there – some of them were having a stall to sell items as well as buying goods – and I can only advise builders to go there next year. It is definitely worth a visit, especially when fitting out a boat.

It might be more to the point to mention this in the December issue as there is a lot of time until the next 'Jumble' but I might forget it and you could put it ready for the next issue.

I might forget too. Ed.

Readers Write

Star Letter

Dear Editor,

We received some slightly adverse publicity in the article on page 9 of the December issue of Sailorman and there has been some soul searching on the loft to find out how it came about that the insignia on this sail in question could have been applied with the eyes on top of the eyebrows.

A comment made in our Drawing Office seems too good not to pass on. The comment by our Draughtsman was "thank goodness we did not 'boob' and get it wrong in another way".

You may see fit to publish our apology for the mistake in your next issue with the sketch below.

Yours sincerely,

E G Smith

Tony Meakin on Kapu Mana 28°4'N 16°56°W

Dear Editor,

In our present position, somewhere between Tenerife and Gomera on passage for Antigua, Robin Fautley's anonymous criticism seems somewhat irrelevant. I'm not sure anonymous is the right word as this usually implies anonymity of author not subject. However I am the person who is supposed to have saved an enormous sum by using the P.C.A. boat register and therefore should be conscience striken into paying the P.C.A. secretaries wages. I am surprised at Robin Fautly sinking to this level of emotional blackmail and cannot see that my use of a free facility offered to all members affects my opinion on the structure of the P.C.A. I would like, though, to clear up this point as it has been made. I used the P.C.A. boat register and efficiently and effectively sold my Tane. A service for which I am very grateful but I "saved", if this is the right word, the cost of an advert in P.B.O. and Exchange and Mart! I would not have employed a Yacht Broker for the humble transaction and although, repeat, pleased and grateful for the P.C.A. committee who set up this facility I am not several hundred pounds better off.

It is my opinion that the P.C.A. must decide what it really wants to be.

1) Is it a public relations organisation for J.W.D? If so they sould pay the secretary.
2) Is is a magazine publisher?
3) Is it, as I hope, a club for those interested in multihulls particularly the designs of James Wharram?

If 3, then members should share the load and when an official feels that they have done their bit, someone else will come forward to take their turn. If no one can be found for the office then the club deserves to come to an end as it is not fulfilling the needs of members.

If the P.C.A. decides at the next A.G.M. that it is one of the first two then I shall resign. If it remains a Club for and run by members I am happy to belong to it.

Dear Members,

Thank you for my honorarium. It was a generous gesture and I appreciate it very much. I do feel rather remote from you all at times as I beaver away in my little ivory tower, so I was particularly happy to receive your token of thanks.

Dear Members,

I have read the December Sailorman and see that Nick Armstrong has retired as Editor. Please join me in congratulating him for the excellent job and wish as much success with future projects.

Chris Moss

And so say all of us Ed.

Unfortunately, I shall have to stand down as Secretary after the next A.G.M. in 1983, so I am looking for some one to take over. Perhaps a wife or girl friend of a builder. I do think that the P.C.A. offers great comfort to builders during their labours, you are able to share your problems with others. Please write to me, if you feel that you would like to take this task over. Don't leave it until the January A.G.M., think about it NOW. The work varies from a trickle to flood-like proportions when you are sending off the magazines and you have to enlist the whole family's help. It is VERY important to have a Secretary, so please do not leave it to "the other person" to volunteer. No secretary, no P.C.A.

Anthea.

South West News

by Guy Barron

Sid an Sonia Sury-Gent's Narai Mk IV hulls are deck side up and the lab fitted. The dark room is next I think. Not bad in around twelve months.

Steve and Sandy Turner have built a shed. On deck, they are afloat and I think the shed comes off for sailing. The bows of their Oro 'IMAGE' are pointing in a sort of Southerly direction, is this meaningful?

Also at Millbrook, Roy Maggs has started his foam sandwich journey into the unknown. Pray for him.

A Narai ketch that faired badly during the bad winter is having to be broken up by Pat Patterson. Good set of sails, and lots of stainless fittings. See Ad.

Maggie Oliver, ex J.W.A. is now running the office at Exeter Maritime Museum.

Geof Field, a farmer, what else? Has bought NUOM AS DI, Stuck on the mud in Arabic. It was built by Roger Knight and has sailed the Atlantic at least once, (may she flew back, Ed). The boat will be trying not to live up to its name by the summer.

SHANIDA at Exmouth has been given a lick of paint by David Goss and is looking very smart.

Shanida's original builder owner Simon Beeson is building a super fast lightweight cat for the round Britain race. Good luck Simon. We'll keep a eye out.

This year there is a choice of venues for Polycaterers on the August bank holiday. Either Milford Haven or Milbrook. Contact your Area Sec or Secretary, S.A.E. for details.

Good Sailing.

Dear Editor,

Each time I receive the SAILORMAN I suffer pangs of conscience on seeing all the excellent work that has obviously been put into the production, and realising that once more I have contributed nothing. Usually of course I recover quite quickly and carry on as normal, but this time there was no escape and the attached notes and results. I hope you may consider some of it to be of some general interest. I also enclose some photographs taken during the passage to Milford.

I would like to suggest to you that you appeal, yet again, to members to make an effort to pass on some of the detailed local knowledge which they all possess of their own home waters, and which would be so valuable to other members who might be visiting their home waters for the first time. Details of anchorages that are safe or difficult of access, cheap or expensive, crowded or not, problems of entry etc. The membership must collectively possess sufficient detailed knowledge to produce a Polyeat Pilot for most of these islands and beyond, yet so little detail is even passed on. Freehand sketches of anchorages with the related notes would also be valuable. The sketches could be very basic provided they were named and had enough detail to allow them to be identified on a proper chart.

Best Wishes

Tom Kelly

LETTERS FROM NORTHWEST MULTIHULL ASSOCIATION

Mel and Thelma Langley forwarded the following letters from Helen and Bob Olivier.

"We just got back from spending 2 weeks cruising in our canoe around Isla Tiburon in the Gulf of California. It was really great – water warm enough to swim, no bugs and no people.

It looks like 2 years before we get back, but money to put up sails and cruise for several years."

The Olivers also send along the following ship-board tips and ideas:

Notes on using sea water in cooking:

Use ½ salt and ½ fresh for boiling rice, noodles, dried things, as well as for fresh vegetables.

Use all salt water for any baking, but, of course leave out all salt called for in the recipe.

Pressure Cooker Fresh Water Still:

A simple still can be made from a pressure cooker, polybutylene tubing, copper tubing, conne tors and a second pot. If you have a Mirro pressure cooker, use 3/8 OD tubing with snap on or compression fittings. A fitting will go right over the steam vent. Run tubing to a coil of copper in a pot of cold sea water; out of that pan run tubing to a water jug. A slight pressure is required to force the water out of the copper coil into the water jug, so one cannot have major leaks. About 3 feet of copper is sufficient, if the pot of water is kept cool. If you already have a pressure cooker, than all you need is tubing. As an emergency item for fresh water, what could be better? Over an open fire this setup produces about ½ gal/hr. If distilling 3 miles offshore OK.

Barter Items:

Two useful items for barter in cruising in out-of-the-way places are a Polaroid One-Step camera (instant pictures) and children's felt pens, (the K-Mart type).

Love to all, Bob and Helen Olivier

A note from Robert Childers (building Wharram cat in Gilchrist Oregon)

Dear NWMA,

The Wharram catamaran I'm building is progressing fairly nicely but oh so slowly! Besides being a complete amateur at boat building, I am using WEST System to coat everything (including myself) with epoxy and that adds a step or two into the building. I am scarfing up the stringers for hull = 1 and when they are done I will be setting up the back bones and bulkheads.

I am hoping to be done with the basics by the end of summer, but will have to hurry as the summers are short here at 4300'. Hope you are enjoying a nice summer for sailing.

I enjoy the newsletter, hearing of people who have gone off cruising to some interesting places to enjoy a bit of sunshine.

Fair winds,
Robert Childers

NIGHT CLOUD IN NEW ENGLAND

A postcard from Bob Burdett and Shirley Bailey mailed in Providence R.I., October 28th:

Hi there. We are in the sailing capital of N. America. You must see Maine shoreline, if you haven't, its beautiful. New Hampshire is short and shallow. Cape Ann is really pretty; from there we blasted down to Cape Cod and waved at Boston. We met a Canadian sub en route thro' Cape Cod canal. Nice to wave to fellow Canadians. We're sitting out rain and fog here – things going much better than in Nova Scotia, where we had only 7 sailing days in the month of September. Next mail drop is Tom and Carol Jones. You must see the pix of the Narai in September 1981 Practical Boat Owner – fantastic. They still say they can only go 16 knots. We are going to write to Wharram. Boat is holding up very well, better than we expected.

Best wishes to everyone.

Shirley, Bob and Nigel Cloud

Dear Editor,

A lot of building is going on in Scandinavia, and close to launching is Oro built by Oystein Tonnesen and his friends in Kristiansand. They should be launching before winter is here.

Next year we will see the Areoi, built by Elisabeth and Helge Nedrebo, on the water. Also we hope to see a Tehini and a Hinemoa built by John Hovemoen and his friends not far from Bergen. In Sweden we expect Denis Lodge to launch his Oro. A Captain Cook will be started in Sweden soon, the first one to be built in Scandinavia.

Yours sincerey,
Laila Tunheim
Tolbar Marine
Skiveien 33b,
N–1410 Kolbotn,
Norge

Canadian cat chat

The Polycat T-shirt for renaming this column goes to Steve Veale.

A lot of catamarans in the new this time. In June Bob Burdett's Narai NIGHT CLOUD made the 450 mile passage from the Pine River, down lake Huron, the length of Lake Erie, through the Welland Canal and across lake Ontario to Toronto – setting some local Polycat speed records along the way. In Toronto she took on a major part of the burden of Sail-In chores before setting off down the St Lawrence toward the Atlantic. When last heard from (a postcard mailed August 12th) she was at Pointe au Pic, below Quebec City.

In early July John Bellenger's Oro PYXIS left the Magdalen Is in the Gulf of St Lawrence with Diane, Charles, Brendan, Jack Vermeir and John Blakely as crew. Unfortunately an unpredicted gale drove them back to the islands three days later and it was not until after the middle of the month that they made it to Antigonish on the Nova Scotia mainland. From there they coasted along through the Straits of Canso and into the Bras d'Or Lakes. At Baddeck they had to haul her and leave her until next season as John had to be back at work in Toronto at the beginning of September.

Tom and Carol Jones in their modified Tanenui VIREO spent much of July cruising to Bermuda and back. They report a rough but fast (5 day) passage out and a rough but much slower (9 day) return. Although the passages were not particularly pleasant they had a fine time in Bermuda.

July 25th Ernie Heard's Tangaroa CARIAD II returned to Toronto (two weeks late for the Sail-In) from a ten month cruise to Florida and the Bahamas. She was sporting a new Honda outboard, a very tanned Ernie and Margaret and a stranger who kept insisting she was Sian.

The first week in September Mac Brown was supposed to leave Picton Ontario for Florida in his Tane CHIQUITA, and presumably has done so. He plans to visit other Polycatters on the way south.

I myself have managed to get in a little travelling this summer; first by crewing with Bob, Shirley and Gord on Night Cloud for her trip to Toronto. Later Ginny and I drove to New Jersey for a holiday where we met up with Tom and Carol Jones just after their return from Bermuda. Vireo was painted experimentally with latex paint this season and it seems to have stood up to the trip quite well. Tom and Carol have quite a fleet of boats they have built: their Polycat Vireo, a 22' open motor launch, a 12' sailing pram and two kyaks. They believe in taking full advantage of their riverside location.

From Tuckahoe we drove across to Fortescue on Delaware Bay where Steve and Sherry Veale live with their new baby Jennifer. Steve's Tangaroa is nearing completion with hulls, decks, cabins and interiors finished in the WEST system. All she needs is paint and windows. She has a particularly fine standard of finish. Both the Jones and the Veales would be really happy to see any Polycatters heading south through their area. (don't miss Steve's home made beer!)

While in the area we made a side trip to Wilmington delaware to see Waldo Coon's Narai MkIV under construction. Waldo's house was easy to locate by the Maui in the driveway. In the back yard he has just finished stringering hull number two (using mahogany stringers). Hull number one is finished inside and out.

On our return to Toronto Ginny and I spent a weekend with Harry Ellis on his Raka LANAO checking out his windvane self steering. This was the first trial of the gear and while the vane and the rudder trim tab both work well, the linkage still requires a little work to cure a tendancy to oscillation in the system. We hope to have a report when the bugs are worked out.

Hope to see many of you at the next meeting,

All the best,

An account of the first Quebec Polycat meeting:

LAC ST. LUIS POLYCATS GET TOGETHER

by John Mackenzie

On June 7th, thanks to an announcement in the previous Polycats, a bit of phoning around, and good old Polycatters enthusiasm, a wonderful get-together occurred at Service Nautic.

As the site of the first Canadian Pahi 31' construction it seemed the logical place for such a meeting of Montreal area enthusiasts, but to make things even better there was tremendous support from Ontario people (who as everyone knows REALLY know how to have meetings!) The crew of Pyxis were there en route to the Magdalen Islands, the Huebschs drove down from Toronto for the weekend and to my delight and astonishment Mac and Aileen Brown drove all the way from Picton for the day.

There was a tremendous array of photo albums of buildings, turnings over, launchings, sailings, and even of Pyxis surfing down huge storm swells in the gulf last fall. Pierre Desruisseaux, builder and skipper of the junk rigged Tangaroa "Sacripant", brought a film of his voyage as far as Ile D'Orleans which we projected along with John Sarsfield's films from his Hina adventures in Brazil, in a very successful "instant cinema" created inside the Pahi boatshed by draping tarps up to darken it.

Although nearly foiled the night before by thunderstorms, our co-operatively owned Hina "Cirrus" (built by Larry Armstrong) also made it to the meeting, working up the lake into force 4 and the current of the river so that some of the people who came were able to go out for a sail. There was no lack of wind and though the waters are somewhat confined there, hopefully those who got to go sailing enjoyed themselves.

It was wonderful to see the Quebecois Polycatters get together and meet each other. The meeting had a very warm atmosphere and I think everyone found it interesting and mildly surprising to meet other Polycat enthusiasts in this part of the world.

I would like to thank everyone for coming and making it such a nice time and for helping turn over the first Pahi hull. It was quite something to see it right side up at last. Hopefully we can organize another get-together before to long with some of the long awaited Quebecois Rakas attending. . . . . .

FAST PASSAGE

by Roly Huebsch

I recently had the priveledge of crewing on Bob Burdett and Shirley Baily's Narai MkIV "Night Cloud" on a passage from the Pine River on Lake Huron to Toronto. The fourth member of our crew was Gord Taylor of Kincardine.

"Night Cloud" is cutter rigged and our selection of foresails included a masthead genoa used in winds below 15kts and a stays'l and yankee combination followed by stays'l alone as the wind grew stronger. For downwind work in light winds we carried a DRS (Drifter Reacher Spinnaker). The internal layout of Night Cloud differs slightly from standard; the starboard hull has a double berth forward, navigation area amidships and a storage hold under the cockpit aft. The port hull has a single berth with standing room beside it forward, a raised dinette seating arrangement in the galley amidships and a double berth aft. I was very favourably

impressed with the boat's performance, particularly her ability to truck right along in rough water. I had not expected this in a comparitively fat boat like the MkIV.
We left the Pine River and headed SSW with light winds on the tail. This was our slowest day and by nightfall we still had about 18 miles to go so motored the last four hours to Sarnia. Next day we had south-westerly force four and we beat down the St Clair River – long and short tacks – making up to two miles on a board. We were lee bowing the two know current all the way which carried us through the lee of buildings, trees, etc with very little loss of speed. The winds grew lighter as we crossed a choppy Lake St Claire to spend the night at Grosse Pointe Michigan. Day three we had westerly force five winds and we had to long and short tack again – under stays'l and reefed main – down the Detroit River. Past Windsor the river turns a little and we were able to close reach at 10-12 kts through calm water. On into a choppy Lake Erie with the wind gusting force six and a fast downhill ride to Put In Bay on South Bass Island. Several times when surfing off the tops of waves we managed to pin the knotmeter at 20 kt, though we were probably averaging only (?) 12 kts.
Spent a day sampling the local wines of the Bass Islands then on to Fairport Harbour one night and Erie Pennsylvania the next. Approaching Erie running wing and wing with the main to starboard and stays'l to port in force five to six we hit the shallower water and higher waves off Presque Ile Point and surfing off one wave the boat took a sheer to port and ran off at high speed with the wind on the quarter. The turn was of sufficient violence to throw things off the galley counter and this is the closest we ever came to a broach. We found that taking in a reef in the main to better balance the stays'l made her immediately better behaved. Crossing the lake to Port Colbourne next day with the wind on the beam produced the most uncomfortable motion of the trip but it did not slow us down at all and we pounded along at 6–8 kts with the decks and cabin tops continuously wet with spray.
Next day's passage of the eight locks of the Welland Canal was completed in dead calm and much heat. Going down poses no problem in the locksand the passage was made in a slightly faster than average time of nine hours. We spent the night at the Port Dalhousie Yacht Club. (thanks Jack and Irene Dundas for the great dinner).
The Toronto skyline appeared out of the mist shortly after noon the next day and we completed my part of the voyage at Toronto Islands after a rather slow Lake Ontario crossing.

A CRUISING SURFCAT?

Laurie Curson of Innisfall, Alberta launched his Surfcat "Deux Elephants" last fall. He reports that he is very happy with her although he does have some trouble tacking. However.....

> "More often than not I found myself sailing alone or babysitting while my wife sailed. As a family unit the Surfcat is a bust. Sooo.... with hammer and saw and drill and wrenches I set about increasing the Polycat beam to 9' and mating it with an old 17' cedar canoe. Five hours later, up went the rig, in went Mona, Dad, Brendan and Willow (our golden retreiver pup), and off we went. Windward performance is the pits and she makes lots of leeway as well as being grossly underpowered. BUT the whole "Fam Damly" is together and having fun for a minimum of cost. We are so encouraged that we are contemplating loading up the ½ton capacity guide model "sailing canoe" and going CRUISING and just so long as we don't have to go too much to windward I think it will be quite successful. Beats paddling anyhow!
>
> "I just thought there maybe some destitute (like us) yet keen (like us) sailors who might be able to benefit from the extra room and load carrying that this odd combination makes possible. If that is the case I will be glad to share ideas".

HINEMOA

Michael Winkler of Grawn, Michigan launched his Hinemoa "Caper" last year. Since then he has built (and sold) an eighteen foot racing catamaran and, as he is to be taking a college course in Iowa and not taking "Caper" along, he plans to build a fifteen foot six inch rowing dory for exercise on the Mississippi. About his Hinemoa he writes:

> I am very pleased with the larger cabins I designed. They are warm, watertight, and very importantly in good proportion to the rest of the hull. I am so pleased that I would be willing to share this modification and procedure with others if there is sufficient interest. (let me know. Roly). The boat looks much more beautiful than I had dreamed. Cathy and I are both sold on a cat for a sailing machine due to the large deck area (for bikes) and the stability they afford. When we get back here and established I would like to build one of the larger racing types like a Raka or Ariki.
>
> I wish to hear some suggestions for bettering its ability to come about. It will do so only occasionally and only in medium winds, not light or heavy. I have it rigged as a cutter with 100 sq' main, 65 sq' staysail and 65 sq' jib. The mast is stepped a bit ahead of the center of the boat and is raked as per plans. Also I have a Seagul engine and am looking for a suitable way to mount it so it will be readily available.

POLYCAT TACKING

1 If you are using a non-standard rig, make sure that the center of lateral area of your sailplan is at the same point as that of the original sailplan.
2 Get the best speed possible on the boat before tacking. If you have been pinching her, let her run off a bit to pick up speed. As any turning slows the boat down, do not attempt to tack from a reach. Bring her up to a close hauled course and let her pick up speed for a few seconds.
3 Do not jam the helm hard over, the rudders will just act as brakes and you will loose speed rapidly. Instead put the helm down gradually, hardening up the turn as the boat slows. A constant hand pressure on the tillers will do this automatically.
4 Do not let the head sail sheets fly immediately, let the wind take the headsails aback as it comes ahead, pushing the bow around. Leave the jib aback until the mainboom has passed the centerline of the boat.
5 If you do get caught in irons – head to wind – do not forget to reverse the direction of the rudders as the boat starts to make sternway. A two masted polycat can be helped out of irons by pushing the mizzen boom in the direction in which you are trying to turn letting the wind swing the stern around.
It is worth noting here that our old sprit-rigged Hina would tack herself. Just let go of the tillers and don't touch the sheets and her slight weather helm was enough to bring her very slowly around.

BODY BEAUTIFUL, BAHAMAS AND GHASTLY GALE

by Sian Heard

Being a continuation of the peregrination of the Heard family in their Tangaroa "Cariad II".

At the beginning of April we left West Palm Beach, Florida and crossed the gulf stream to West End, Grand Bahama Island.
When we arrived in the Bahamas we could not get over how clear the water was. It was the first time we had ever been able to lookover the side of the boat and see all of the plant and marine life in the water.
We spent a few days at West End with some friends, Larry and Nancy, on a Golden Hind called "Sundancer". West End has a large resort hotel

complex with its own movie theatre, airport, fire department and lake sized swimming pool. About two thirds of the guests at the hotel are Canadian.
"Sundancer" and "Cariadll" travelled together for a while, then went their separate ways until meeting up again at Marsh Harbour. Marsh Harbour is a meeting place for cruising boats in the Abacos. Many people use it as a base for stocking up with supplies and for receiving mail. We stayed there for a week, spending a lot of time with some good friends, Linda and Warren, on a Brown 31 called "Shadowfax". We also met up with other old friends and made many new ones.
This town is the third largest "city" in the Bahamas. It has one gas station, a post office, two banks, two bakeries, one set of traffic lights and a Kentucky Fried Chicken! Yes folks, fast food in the Bahamas!
Each place that we stopped at had something special about it: Guana Cay, a beautiful ocean beach with a reef lying about a mile off shore. Turtle Cay, a pretty town with very friendly people. Marsh Harbour, nice people and a great bakery. Alans-Pensacola Cay and Manjack Cay, good fishing and snorkelling, and Great Sale Cay was beautiful because of the solitude. West End had good ice cream and when we wanted some ice to chill our wine for our lobster and fish dinner, Larry and I took his dinghy to the hotel and "borrowed" a bucket of ice from a hotel guest who happened to be from Keele and Bloor Streets in Toronto!
We realized that if we wanted to be back in Toronto by the end of June (ahem!), we would have to leave for Florida soon. After a tropical depression had passed and the weather had cleared, it was "Up Anchor and Westward Ho!" [continued next issue]

BAHAMAS AND GHASTLY GALE by Sian Heard

Being a continuation of the travels of the Heard family in their Tangaroa "Cariad II".

Gulf Stream the waves were steep. At times we were moving at five or six knots. Dad made up a drogue of some line, a tire, and twenty feet of anchor chain. We were still surfing at three or four knots back the way we had just come. A second similar drogue slowed us down to one or two knots (we are thinking of making a Jim Brown type drogue). We went through two truly awesome electrical storms. It seemed as though the boat was a stage around which an incredible but frightening show was presented. The lightning and noise of thunder was continuous, and one hammer blow squall sent us scrambling to claw down the reefed jib and run again under bare poles. At the beginning of the second electrical storm, Mum and I were on deck while Dad was trying to get some sleep when a bolt of lightning hit the water ten or fifteen feet away from the boat making the loudest bang I have ever heard.
After the gale passed we had to beat against 20/25 kt headwinds to close the coast south of Cape Hatteras. Two days of this brought us to Beaufort, North Carolina and for the first time in seven days the anchors went down and we slept: After relaxing, it was out to dinner at the local restaurant for a well deserved treat. At Beaufort we met Jim and Beth who have an Oro called "Wahine Irene". They were so pleased and excited to know that there were many people who had Wharrams and who were interested in them. Jim was convinced that he was the only person who had one. We loaned them our issues of the Sailorman and the Polycat newsletters. For the next few nights we could see the lights on their boat untill two or three in the morning. They were busy reading up on new information.
After being delayed at Beaufort by motor problems (so what's new?!), we sailed up to Cape May, New Jersey where we saw Steve, Sherry and Jennifer Veale. At that time Carol and Tom Jones, on Vireo,were en route to Bermuda.
From Cape May it was off to New York City and then up the Hudson River and through the Erie Barge Canal to Lake Ontario and then back to Toronto.
Our first cruise has been a good experience for us and we now have the incentive to go back and travel to different places. On the trip we made a lot of friends, both on boats and on land. We went through our first gale, tried snorkeling, ate our first game fish, caught our first shark and saw our first dolphins, manatees and turtles.
Last winter I had a great time meeting new people, experiencing new things, and seeing new places but my school work did suffer. So this winter I will be doing my lessons, but during my "lunch break", when I look out of the window and see the frozen lake, people scraping ice off their cars and shovelling snow from their driveways, I will start to dream of the sun, palm trees, warm clear water, clear skies, nice steady winds, a big sun awning over the deck of the boat, a glass of rum and orange juice in my hand.

Neil & Karin McVean of Ottawa have left their jobs and have started building their Tangaroa Mk4 full time in a garage in Stittsville near Ottawa. Both are very keen and hope to launch as soon as possible. Best of luck!

Dear Friends,
Mac Brown and his Tane "Chiquita" arrived at the Jones's in Tuckahoe NJ on 27th September, just under four weeks out of Picton Ontario, and an impromtu Polycat meeting was held with Steve and Sherry Veale coming over from Fortescue and Waldo Coons from Wilmington Del. By 4th October Mac had reached the Chesapeake and an account of his passage from Tuckahoe extracted from a letter appears elsewhere.

Another visitor to southern New Jersey was Al Sunderland of Swansea Maine in his bipole rigged Oro "Banana Split" (see page 8 of the June Sailorman). Steve Veale had an opportunity to visit her when she put into Fortescue and writes:

> "It's a lot different than Pyxis, but that's typical of Polycats. The A-frame rig seemed pretty strange. It seems that Al had hoped to do away with a lot of shrouds but ended up with a tangle of them anyway. He broke his netting beam off Sandy Hook, and had problems with the main A-frame shaking loose. He has replaced the bolts holsing it to the cabin tops with larger ones."

A phone call from Bob Burdett indicated that he and Shirley had had very poor weather in September in the Maritimes (what part of the country did not have poor weather in September?), and as of October 15th they were only in Bar Harbour Maine. They are really going to have to push on to find that warm weather.*

Incidentally, any subscriber who would like to have travelling polycatters drop in on their way by could send me detailed directions for finding their place and I will put them on file. Perhaps making up a sort of "Polycat Pilot". I already have a couple of pages for southern New Jersey.
*More news elsewhere in this issue.
All the best,

Comments from a Convert

— Martin Evans

Why a polynesian catamaran?

Three years ago we were looking for a boat capable of ocean-cruising and occasional charter. Our practical introductions to Wharram catamarans came when we met the Austrian "Kalimera", a 44 ft. 'Naro' – as her builder calls her – built of glassfibre in foam sandwich construction with raised crossbeams, very long cabin trunks and a lot more accommodation than most polycats (see Sailorman). We were so impressed that such a large, apparently seaworthy could be produced for a sensible price, that we considered building one ourselves in Greece.

Before starting this project we looked at some more examples, and quickly realised that the second-hand purchase price was often no greater than the cost of the materials employed in their construction; we were reluctant to spend months on building if we could find a suitable completed boat. Many of the Narais, Oros and Tehinis on the market were very cheap, but crudely finished. "Tinorua" exhibited such craftsmanship and use of high-quality materials that we could not resist her, even though her interior layout was not as we would have chosen if building.

Construction and Accommodation

"Tinorua" is a 40ft. Narai Mk. II, launched in 1976; we are the third owners and, I believe, the only ones who have sailed her seriously. She is built of marine plywood, the hulls, decks and cabins being excellently sheathed in glassfibre and epoxy resin. Her accommodation was too limited, with one double in the starboard hull and two singles in the port. We changed this to give a double in each hull and two singles in the aft compartments (that in the port hull with a crawl-through hole to the galley as well as its own deck hatch), with the additional possibilities of making temporary, but comfortable, berths in the navigation and dining areas when chartering. She has a large, efficient galley and the best chart table I have ever used.

The cockpit is nearly amidships in one hull and houses the wheel, compass and engine controls. When we bought her, it was protected by a clear-windowed spray dodger, from above and all sides, supported on flimsy aluminium frames. I would have preferred to locate the steering position further aft, and perhaps use the tillers directly, but without major alterations this would not have improved the accommodation, so I replaced the ageing spray dodgers with a lower, stronger plywood 'wheelhouse' with access from the deck, the navigation area or the cabin. We enjoy its protection when it is really raining or blowing, and in very strong sunshine, but for normal steering sit on a cushion on the central bridge-deck with feet on a step in the cockpit, wheel beside us and clear visibility forward.

For the wheelhouse windows I used 4mm. 'Lexan', an extremely strong, yet flexible material which does not craze in sunlight, can be cut or drilled without fear of cracking, and will resist almost any impact (available from Visijar Laboratories, Pegasus Road, Croydon Airport, Surrey).

After two seasons' sailing we are happy with the privacy afforded by the split accommodation both at sea and in port, the possibility of having 7 or 8 people aboard, not counting those prepared to sleep on deck or in the bow-netting, and of course the enormous deck space. When there are only two of us the boat is too compartmentalised, particularly at night and in winter, and we miss a large, comfortable saloon.

"Tinorua's" deck layout works well, particularly as the slates extend right across the boat between beams 1 and 2 and beams 3 and 4, giving hidden but instantly accessible stowage for warps and fenders in the gap between them and the deck, with rarely any need to lash things. In addition the slates extend aft of beam 4 for five feet, giving more space and a solid stand for the 8ft. dinghy.

When we bought "Tinorua" the waterline was painted at what I believe to be the designed draft, 2ft. 3 ins., but she was floating with her 2in. boot topping only just showing, presumably because all her fittings are so solidly built; naturally we worried about the weight we were adding, not only to the accommodation and cruising inventory, but by the installation of a diesel engine, but her resultant draft of 2ft. 9ins. does not seem to handicap her. Perhaps she is not quite as fast as lighter polycats claim to be, but she apears to be extremely stable and safe.

Eventually we will make these changes:

(i) move the toilet to the starboard aft compartment, so that it can be used even when going to windward in a big sea.

(ii) move the astrodome from the navigation area (where it enables us to see where we have been!) to the main hatch in the port hull, to enable easy visual contact with the helmsman in rough going (our intercom fell prey to salt air).

(iii) cut out the present deck of the four bow and stern compartments and re-deck them at the height of the existing bulwarks (with a low toe-rail for security), thus removing the wave-catching vulnerability of the bulwarks and increasing the width and height of those cabins without altering the sheerline or height of topsides.

The Rig

"Tinorua" is a bermudan ketch with aluminium masts and booms. The mainmast has spreaders, and all shrouds are tightened by lanyards (it would seem more sensible to attach the shrouds to the crossbeams, not to chainplates on the hulls, but we have had no problems). We don't have the plans, but suspect that either the mainmast is further forward than others, or the foretriangle is larger. The inner forestay attaches to a bridge fastened on either bow, the outer forestay to a wooden bowsprit which projects from beam 1 to 5ft. forward of the tie-beam joining the bows, with bobstays to each stem just above the waterline. The cutter rig allows several combinations of headsails to be used, and the bowsprit enables large sails to be set well forward in light winds.

The mainsail and mizzen have slab- and roller-reefing. They were originally both fully-battened, but the ends of the battens fouled the mainmast backstays, preventing these from being set up permanently. In addition there was the likelihood of chafe at the luff and breakage of battens when pressed against the aft lower shrouds, so the second owner had both sails re-cut to give them normal battens and less roach to their leeches, a sensible move for a boat which is not going to race.

Also with the boat came the staysail, jib topsail, storm jib and mizzen staysail (all by Jeckells). We have added a new 'Lazybones' cruising spinnaker, a second-hand genoa and a nylon ghoster which we made from a Thomas Foulkes (Leytonstone, Essex) parachute segment.

The Engine

Originally she had a marinised petrol engine driving a 12ft. propeller shaft via a universal joint. The next owner removed this and used a 20hp. outboard motor. We needed reliability and adequate power to maintain a charter schedule – the Mediterranean is renowned for having either too much or too little wind – so considered the cost of a new diesel installation worthwhile. We thought about installing a small diesel engine in each hull, or copying "Kalimera's" system to a large engine in one hull driving two propellers hydraulically.

Instead, to avoid alterations to the hulls and to keep the engine, diesel, oil and batteries away from the accommodation, we mounted a 30hp. four cylinder B.M.C. in a central 'pod', driving a Sonic catamaran leg (a very long Z-drive). This has proved to be a very successful installation. With "Tinorua" ashore in Poole, England:

(i) steel engine bearers were bolted to beam 3 and a small intermediate beam which had formed part of the original system – we added flexible mountings at the points where it rests on chocks on the hull sides.

(ii) a steel plate was welded between the bearers and the Sonic leg bolted to it at the required angle and height to give correct propeller immersion.

(iii) the engine was mounted on its bearers in line with and coupled to the Sonic, so that the crossbeams, not the pod, would take its weight, high enough for the bottom of the pod to be clear of the water, yet low enough for the engine hatch to be flush with slatted deck.

(iv) the plywood transom of the pod was fastened to the steel plate and a bulkhead to beam 2, then the keel, chine and deck stringers laminated in positions to keep the pod streamlined yet still give access to the engine sides.

(v) a further bulkhead and the 'pram' bow were added, then the pod planked and decked in 9mm. ply, and sheathed with 12oz. Marglass cloth and West epoxy resin; three hatches and coamings were made, and the batteries and 120-litre fuel tank fitted, leaving the forward compartment of the pod for stowage of spare fuel and oil.

(vi) dinghy bailers were fitted in the lowest part of the pod, a removable ventilation cowl in the engine hatch, a thrust pad for the Sonic, a tackle to lift the leg clear of the water, a neoprene exhaust muffler on the outside of the pod and a cooling water inlet pipe fastened to one hull (to avoid underwater holes and enable the engine to be run with the leg raised.

Performance

(a) **under sail**

We had not sailed a catamaran before, but are very pleased with the comfortable motion, stability and speed. Compensations for the mediocre windward ability are the exhilaration off the wind and the advantages of shallow draft. The worst aspect of a polycat is that the crew gets so wet on deck, but we try to sail in warm waters. Examples of our experiences are:

(i) Dartmouth to Lisbon (860 n.m.) and Minorca to Tunisia (380 n.m.) averaged over 6 knots without pressing at all. With sufficient wind 8 knots can be maintained under easily-handled sail, for higher speeds we must work harder.

(ii) Have maintained 10 knots for more than one hour, and bursts of 12 knots for several minutes, with "Tinorua" still stable and in perfect control, though by this stage we are thinking about reducing sail to ease the pressure on masts and rigging.

(iii) On a reach or run in force 4 or less we nearly always set the 650 sq.ft. 'Lazybones' asymmetrical spinnaker to boost the otherwise small area of the working rig, and often the mizzen staysail too, giving speeds up to 10 knots, perhaps 50% faster than a cruising monohull of the same length.

(iv) To windward performance is poor in light winds; in moderate conditions we can match a modern 27ft. keelboat, moving faster but making more leeway and not pointing so close; when the wind is stronger she will still make progress but (as with any boat) crew discomfort increases drastically and we carry on only if we have to. Overpressed under main, mizzen and staysail, and beating into force 6 and steep seas, we made 6-7 knots through the water, 8 135° between tacks (including leeway), an average of 2¼ knots over the ground.

(v) In the Bay of Biscay in force 8 we made 4 knots under bare poles 145° off the wind, steering perfetly on our course. In Greece in a force 9 squall we made 5 knots directly downward with no sail set.

(vi) Tacking is slow, but we usually back the staysail and mizzen to help her round; in fresh winds, if the mainsail is not set, this results in rapid (and at first alarming) backward acceleration, neccessitating plenty of room to leeward and a charge of wheel lock to complete the 'three-points turn'.

(vii) There is little tendency towards excessive weather helm or broaching except when surfing down large waves, usually under spinnaker and mizzen, when the bows may tend to dip and the rudders have only half of their blade area immersed.

(viii) The pod, Sonic leg and propeller are just clear of the water at rest, but are hit by the wavetop if it is choppy. At 8 knots off the wind the wave formation between the hulls results in a deep through below beam 3, leaving the pod and propeller well out.

(b) **under power**

(i) In calm sea 5½ knots at 1900 rpm. using 3 litres/hour. Full speed 7½ knots at 2700 rpm. (short bursts).

(ii) Against force 6 in the open sea 2-3 knots, the speed limited by the high windage and violent pitching the pod is waterproof and strong, and pounding is not serious because of the sharply-veed bottom, but more spray is deflected upwards through the slats than previously.

(iii) Manoeuverability in small harbours and bays is poor, as the propeller is nearly in the middle of the boat, and no stream is directed from it against the rudders, so we must be making 2-3 knots – forwards or backwards – to have steerage way. The Sonic leg has a steering facility (25° either way) but its effect is negligible in our position. It might be more so if mounted under the back beam, but would then jump out of the water when pitching, something which it never does in our case. The most awkward circumstance is that of steering in a wind so strong that the engine can just hold its own, but does not have the extra power needed to give steerage way.

Anchoring

We have not yet solved this problem satisfactorily, and would be grateful for other readers' comments or solutions. Jim advises using a proven brand of anchor – he is right, of course, but this cannot be the only factor. We have

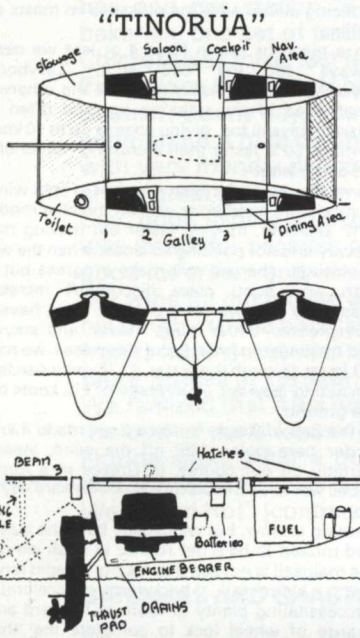
45 lb. Danforth-style, 35 lb. plough, 60 lb. fisherman, 25 lb. Danforth.

and have tried many combinations of anchors, warp and chain (up to 100 metres of 18mm. nylon, 30 metres of 5/16 in. chain and 10 metres of 7/16 in. chain, plus 40 lb. anti-snubbing weights). Sometimes she holds without trouble, but we cannot be sure that she will not drag, particularly in crowded anchorages where we

cannot use as much scope as we would like. Shearing doesn't seem to be the problem so much as her reaction to violent squalls, when she moves backward so fast that the anchor(s) are wrenched out, even if they had been seen to be dug in properly before the squall. Usually the chain or warp passes over a roller on the centre of the forward tie-beam (strengthened by the bowsprit) but sometimes from a roller on the centre of beam 1.

We will try larger &/or different anchors, but this will necessitate an anchor windlass or capstan. We will also make a sea anchor to help to slow the boat at sea if necessary.

The summer of 1982 will again be spent in the Mediterranean, but we plan to cross the Atlantic to the Caribbean in the autumn.



PARTNER WANTED

Partner wanted to help fit our An Oro for charter in Caribbean this winter.

An investment of £2,000 buys a 1/5 share.

Full Details from:
John Farrimond,
19 Ash Grove,
Orrell, Wigan, Lancs.
WN5 8NG

Northwest Multihull Association

REFLECTIONS ON A SOLAR BATTERY CHARGER

by Al Lundell

Note: The first portion of this article is an introduction to the basic electricity of a battery and can be skipped by those who speak it.

The terminals of a battery can be likened to water tanks on different levels. If a pipe is connected between the tanks, water flows from the higher to the lower. Raising the upper tank increases the pressure and more water flows. Between tanks at the same level, there is no pressure and no flow. We measure the pressure that moves the water in terms of the height difference between the tanks: We might have 8' of pressure. We measure the water flow in gallons per hour. How much water flows also depends on how much opposition to flow there is. The constriction of a ½ inch pipe allows less flow that a 6 inch pipe. And a river bed full of rocks will inhibit flow (called "current").

In electrical circuits, the driving pressure is the "voltage between the battery terminals. The greater the voltage, the more pressure there is causing electrical flow (this is also termed "current"). This flow is measured in "amps", which (with apologies to all) is billions and billions of electric charges flowing by per second. For scale, a transister radio draws about .1 amp of current, a pair of deck floodlights draw 4 amps and an engine starter draws about 250 amps. Note that all of these operate at a pressure of 12 volts. The different in flow is caused by the difference in opposition (in electrical terms, "resistance") each offers. Starter motors have few rocks.

We "recharge" our water tank system by lifting a bucket of water above the upper tank and pouring the water in. But if the bucket is lower than the tank, a check valve would be needed to keep the tank from draining into the bucket. The bucket must be higher! To be charged, a battery must be connected to a higher voltage than that between its own terminals. An engine driven generator has a voltage of 13.8 volts and can force current to flow into the 12.6 volt storage battery.

Back with us? OK.

Solar cells have a voltage generating capability of .45 to .50 volts in bright sunlight. This voltage is determined by the materials that make up the cell, and all cells are the same. (So a cell advertised at .50 volts is no better than one advertised at .45 volts). The current capability depends on the surface area exposed to light. A 3" diameter cell will be rated at about .8 to 1.0 amps (same advertisers) and a 4" cell, 1.5 to 1.8 amps. Now, if these cells are only 5 volt, how do we get them to charge a 12.6 volt battery? One way to get that water bucket high enough to fill the upper tank is to stack enough one-foot bricks under it till it is higher than the tank. Likewise, we "stack" .5 volt cells (electricians call it "series-wired"). How many cells? Most articles say 36 cells. My test panel had 33 three-inch cells.

So, 33 cells gave me 16.5 volts and .8 amps, right? Wrong. It seems those advertisers are at it again. Yes, it will have a voltage of 16.5 volts and .8 amps if a wire is connected directly across the terminals. (Zero volts) But not 16.5 volts and .8 amps at the same time. There is a Catch-22 called "internal resistance". Whenever current is flowing, some of the voltage is "eaten" inside the source. The more current, the more the loss. A 12-volt battery will measure only 8 to 9 volts when cranking the starter motor. So what to expect? The graph below shows measured current (into an almost fully-charged 12 volt battery, with bright sunlight on February 5th) plotted against the number of cells. Note that it took 26 cells just to get the charger to the same level as the battery. Note also the plot beginning curving as the current nears the .8 amp limit set by the internal resistance.

Suppose a cloud moves over the sun. Now the charger voltage drops below the battery voltage and the current reverses. The solar panel will dischrge the battery. To prevent this, an electrical check valve called a "diode" is used. So the panel can be left doing its job with no worries when the sun goes down. Neat, but unfortunately, the diode cancels the effect of one solar cell! No getting around it, though, except by adding another cell to the collection. These curves were made with the sun only 20 degrees above the horizon on a February morning. If memory serves correctly, I believe the charging current in July ran some 50% higher. The best charging rate, of course, was with the sun perpendicular to the panel. I was surprised to find that tipping the panel had little effect until past 40 degrees when the current started falling. Most of the time last summer I just laid the panel flat on the wing as the sun climbed and descended, and the plane swung at anchor.

Battery capacity is related in amp-hours. A 50 amp-hour battery will deliver 5 amps for 10 hours, 1 amp for 50 hours, or almost any other combination. So, to fully charge a dead battery, a solar panel must provide .5 amp for 100 hours, right? Wrong again. It would need 125 hours. Around 20% of the charge is lost due to . . . you guessed it, that ol'devil, internal resistance. The lost energy heats up the battery. (Incidentally, rest any fears about a solar panel over-charging this large a battery. A .5 or 1 amp charge current is not enough to boil the water or buckle plates even after the battery is fully charged. Just hook the panel up and forget it.)

Many articles claim you get some charging current even on an overcast day. No way! During my test, a thin cirrus haze moved over the sun and knocked the charge rate to only 10% of what it had been – but the sun was still too bright to look at! And a very bright cloudy day last July was not able to cause any charging of the 12 volt battery. (But it did manage to deliver a charge to my 5 volt tape player battery.) A shadow (as from mast or crew) and any part of the solar panel severely reduces the charge current. In the test, covering just one of the 33 cells reduced the .5 amp charge to only .08 amps. (The dark cell becomes pure resistance.)

The cells in a solar panel are fragile. They are built on a glass-like base only a few mils thick. Building my panel, I broke two cells, but just bridged over the breaks with solder. There was no loss of efficiency.

During the summer of '80, I frequently had to run the engine to keep the radio battery charged. Last summer, this little solar panel made that unnecessary. This year I plan to double the size of the panel and eliminate the separate radio battery for a saving of 50 pounds. I paid $4.35 each for these cells, but have since seen the same cells advertized in electronics magazines for $2.95 each.

The reflections? Oh yes. Supposedly mirrors can be used to increase the output of the cells, the limiting factor being heat rise due to the energy lost in the internal resistance at the high current. I might give that a try if we ever see the sun again.

NWMA Group Purchase of "Solarcharger" panels is being arranged. Contact:

Louis S. Myers
180 Blue Heron Lane
Friday Harbor, WA 98250

Dangerous Dreaming

by Tom Kelly

D.H. Lawrence once wrote 'Beware of people who dream by day, for they will make their dreams come true.' I can never remember a time when I did not intent to build an offshore sailing boat of some kind or other. I now feel that perhaps such dreams should carry a hazard warning. If they are not scotched early on, the dreamer is doomed. The dream will take over his life.

Ten years ago I and my two daughters spent a memorable week on a Hinemoa sailing out of SANDY HAVEN and generally messing about in that pleasant place. Ruth casually suggested that I should consider building a Tangaroa. She could not have had any into what a fertile place she had dropped that suggestion.

Nothing much happened for quite a while but ten years later, in July 1981, I was at the Tiller of my Tangaroa 'STAR PATH' sailing up Milford Haven to drop anchor in SANDY HAVEN. All the planning and cutting and screwing and gluing and straining and sweating and cursing and grunting and laughing and talking that filled the five summers prior to that moment, would easily fill at least ten very boring issues of the sailorman. Fear not, I shall spare you. Another aspect of this same experience of course is all the pleasure from the dreaming and the hours of satisfaction from the building.

The dreamer must, however, not underestimate the magnitude of the task. Having just completed a Tangoroa it amazes me that any builders, working alone, even succeed in completing any of the larger designs. The road leading to completion is not really difficult for a person with ordinary ability, otherwise I would never have achieved the goal. However the road is very much longer than could even be envisaged beforehand. The dreamer must need a boat very badly, and must possess the determination to sustain the effort necessary to grind on, year after year, when the first flush of enthusiasm has long since blown away. Should a prospective builder have the least doubt, my advice would be not to stand. Buy a second hand boat, or one nearly complete. Be careful, however, about what constitutes nearly complete – 'one hull partly decked and one hull ready for Turning over' – means that 75% of the road still lies ahead, and most the the expensive parts lie a long the way.

This business of cost is of course the other major factor which will determine whether the dream is realised or not. I find it very difficult to give a prospective builder any good guide lines here. So much depends on what the standards are to be, and how good the builder is at solving his own problems, and sorting out bargains from rubbish, and general wheeling and dealing. However as a guide only, and assuming that the intention is to build the hull structure to a good standard, and assuming that all discounts are vigorously chased, and assuming that a great deal of ferreting for gear and equipment is done amongst small ads., boat auctions etc., then I would suggest that a good guide, at any given time, would be to take the then current list prices for say a 1600cc FORD CORTINA, and that sum would probably be sufficient for an enterprising dreamer, with bags of initiative, to get a Tangaroa sized Polycat afloat and habitable. There would be a minimum of essential gear and equipment, a second-hand outboard engine, and perhaps three or four new sails. A less enterprising dreamy kind of dreamer would not have any difficult in passing out the list price of the 2 litre Cortina GHIA model! So give the budget a lot of thought.

To other things. I built my Tangaroa over five summers in my front garden in Fendington BIRMINGHAM. It has been said before, and its true that a great deal of time can be saved if the building can some how be done at home. I originally bought this house largely because the garden provided that possibility. During the fourth year of the building a gentleman from the Department of the Environment sent me a slightly inane letter expressing his concern to notice, as he drove to work, that the front of my house was partly obscured by one large boat, and the offence was being compounded by a second, equally large boat, protruding from the garage on to the front drive of the aforementioned dwelling place. I replied stating that I was grateful for the concern he had expressed, but that despite the boats general air of having been abandoned in fact feverish activity, aimed to bringing the project to a rapid conclusion, was going on in the background. This was the start of an intermitten correspondence which we had over the next fifteen months, in which I variously suggested that perhaps he could drive to work by a different route for a while, and expressed the hope that in any event he would refrain from giving vent to any aggressive feelings he might have towards the project. He put up with one very well actually, until about a month before I had the hulls transported to GLOUCESTER Docks, when he gave me a final warning, I did not have to reply. I wonder if he was disappointed.

Gloucester Docks – A Place To Launch

by Tom Kelly

To any builders in the general West Midlands area I can recommend Gloucester Docks as a convenient place for launching. There is access to the upper Bristol Channel via the ship canal via the ship canal to sharpness. There are no locks on the canal and all the bridges are manned.

The docks at Gloucester are a lovely old, Onedin time, place, but more to the point the area is enclosed and patrolled night and day by Dock Security. There is a mobile crane on site which will unload the hulls, help to position the hulls for the beams, and subsequently carry out the launching. I was allocated a level space near the main basin for the joining of the hulls and completion of the bridge deck. I occupied this spot for four weeks, often sleeping on board with my car parked alongside. All the gates are locked at 1800 hours, exept the main gate which is locked at 2300 hours. Very peaceful, with the radio for company and the gin bottle within easy reach. Its not all hard work you know.

Bob Evans came up to do the survey and give a hand with the launching. It was Scotch that day. As I said its not all hard work.

'STAR PATH' was moored in the main basin for a further two weeks before we moved her down the canal to the marina at Sharpness at the beginning of December 1980. The paintwork took a bending from the ice which covered parts of the canal and was up to a half inch thick!

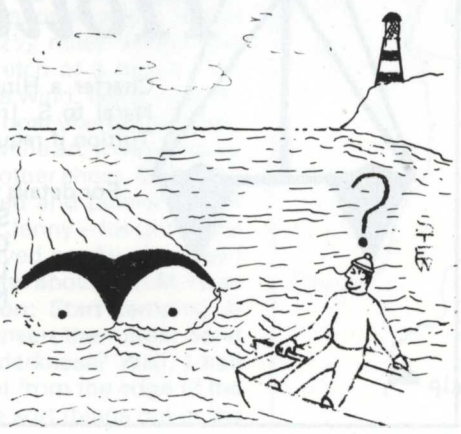
British Waterways charged us just over £50 for any six weeks at Gloucester including the assistance of the mobile crane. The harbour Master is the person to contact first. His office is a small separate building mean the upper lock leading to Worcester.

An additional charge is the river licence for having a vessel afloat. The charge is per foot. A one months licence for a Tangoroa was £20, or £90 for a year. Mooring fees at Sharpness Marina cost £29 per month in the high season.

I would suggest that a builder intending to use these facilities should aim to be ready to go to sea often say 6 weeks on the Dock side at Gloucester and say 3 weeks afloat in the basin. This way costs would be kept to a minimum.

It should be realised that the Tidal currents in the upper reaches of the Bristol Channel are a bit special, and a first passage should be planned for a meap tide. The passage down the ship canal to Sharpness should be made at least one day before the intended passage down the Bristol Channel. When the cranes and buildings of Sharpness docks come into view past the high and low level road bridges, the entrance to the marina lies on the right. Move a short way in and tie up to the right hand bank – the tow path side. There is no charge provided the Marina notice board is not passed. You can walk along the tow path towards the Marina, across by the lock gate at the end of the Marina, and up the path by the Chandlery Shop to work your way down to the dock area – about a mile or so round Trip. It's worth the effort to inspect the docks, sea lock, outer basin, and exit to the Channel. It will be necessary to contact the office by the low level road bridge to arrange to have the bridges open to permit entrance into the docks. These bridges are usually opened for small craft about two hours or so before H.W. The sea lock at the opposite end of the docks is available only from one hour before, centil H.W.

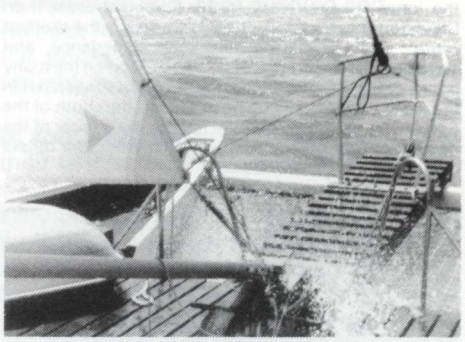
There is a sheltered basin at sea level at the exit from the sea lock. It is best to wait there until ebb has set in. Nothing will be gained by leaving any earlier, since even the last of the flood will drive an auxillary powered sailing boat back up Channel. There is virtually no slack water. Obtain a copy of the BRISTOL CHANNEL CONFERENCE HANDBOOK which is packed with useful information, and Admiralty Chart 1166.



Maiden Voyage

by Tom Kelly

On the 25th July 1981 we set out from Sharpness, at the very top end of the Bristol Channel, for Milford Haven on what was to be the very first taste of sea water for my Tangaroa 'STAR PATH'. An exciting time. Would the dreams survive the reality?



I was fortunate in having on board our sailing Secretary, Mal Jenkins, and two of his R.A.F. friends, Chris and Tom, who were both keen sailors and Tom was also a professional navigator. With this concentration of exertise on hand I was able to relax and try to observe objectively the boat's general performance on this, her maiden voyage. There was a number of deviations from the norm that were on test for the first time, and my concern was, would they perhaps interact to produce an unbalanced disaster, or compliment each other, as was the intention.

The hulls are fitted with 10" deep x 10ft long low aspect ratio keels about which I wrote a short article some years ago, there is no skeg and the rudders, which are of steel and foam sandwich composite construction, would, I think, serve a battleship. The rudder blades are slightly balanced with a trim tab on the starboard side. The rig is the extreme cutter concept of the front Snowgoose type, with the mast on the 3rd beam aft. This makes for a very small mainsail – 130 sq. ft. which is almost a mizzen. The staysail which is boomed and therefore takes care of itself like the main when tackling, is just 60 sq. ft. In consequence the main driving force has to come from whatever sail – jib, genoa – is hanked on the forestay. For this first voyage I had only one working jib of 120 sq. ft. In the conditions obtaining when we set out, light winds from dead ahead, this headsail was totally inadequate. We could only maintain reasonable speed by sailing too free, when we should have been pointing much higher to make all haste down Channel to get well clear of the hazards below the Severn Bridge, 8 miles ahead, before the tide dropped too low.

I was pleased to see that the rig was reasonably well-balanced with some weather helm but nothing excessive. She tacked quite readily provided the jib was backed and not sheeted in on the new tack too early. Nevertheless the real need was for a light weight genoa, something approaching 300 sq. ft. (25m^2) which would have driven us much faster and allowed us to point much higher. Still we were making reasonable progress and the heap ebb was also pushing us along.

It was good to watch the impressive centre span of the Severn bridge pass overhead and drop quickly astern in the increasing current. The SHOOTS Tide race lay just ahead and this dangerous section calls for careful pilotage. Even in the quiet conditions prevailing the water was swirling and bending and boiling as the current carried us rapidly down. There was an air of tremendous suppressed power about the fast moving muddy surfaces of that water. Very much a place to be avoided even in medium westerlies against the ebb, particularly a springs ebb. The conversation became noticeably more relaxed as Avonmouth came abeam on the port side, with the Channel now beginning to

open up a lot more, and the hazards of the upper reaches, particularly the SHOOTS, now astern.

Many yachts, particularly deep keeled mono's., on passage down Channel from Sharpness put in to the shelter of the outer harbour at Portishead to anchor in the mud near the pier steps to await the next ebb tide. I was anxious to take advantage of the Tangaroa's shallow draft and push on further down to anchor during the coming flood tide at Woodspring Bay, halfway between Clevedon and Weston Super Mare. This shallow bay provides good protection from winds that do not have a northerly component. It's possible to take the inner channel close to the Somerset coast from Clevedon Bay to woodspring Bay which is the shortest route; but not having any local experience, and considering the dangers of going aground on the many banks of the Langford Sands, we elected to keep out in the main channel and come in around the south of the Sands. We anchored close in behind the shelter of the headland. I stood the anchor watch while the others went below to get some sleep.

It was a beautiful warm night and I was glad to sit on deck and enjoy a quiet drink. On this first voyage there was far too much adrenalin around for me to have slept in any case. We lay very quietly with no tension in the anchor chain although the flood was now running strongly, just a couple of hundred metres away in the main channel. I had the tea and sandwiches ready when I called Mal and Tom at 0300 hours. The ebb was again running when we motored out into the Channel to set sail in the still light winds. After a short while, and with the light house on Flat Holm flashing strongly ahead, I was happy to go below to my bunk.

When I awoke some three hours later Flat Holm was low on the horizon astern. Breaksea Light was off the starboard quarter and we were making best speed towards Minehead in the, still light, Westerly. The following track took us back across the Channel to Nash Point by which time the tide had turned against us once again. We spent the next five hours tacking in line with that headland in an effort to stop the tide pushing us back. We lost about ½ mile for all our efforts, and this yet again underlined the need for at least one large light-weight headsail.

This really was the story of most of the passage, with the high persisting, giving blue skies, glorious sunshine, and only light westerly winds. We had a brief few hours of lively sailing late on sunday afternoon when we had to run up into Swansea Bay to the Mumbles to allow Chris and Tom, who were on flying duties the next morning, to get back.

Mal and I set out again before dawn to take full advantage of the ebb only to find that the wind had now almost died completely. We part sailed, part drifted on the ebb, and part motored, until by late afternoon we slowly left the Helwick light vessel astern. Towards evening the wind picked up just a little but not enough to give any hope of reaching Milford; and since Mal was due back on duty the next morning we sailed into Tenby to anchor close in to the beach.

Mal and his two friends rejoined me the following evening, Tuesday. We spent a pleasant evening in Tenby, visiting a local hostelry and the yacht Club which was crowded with competitors for the National Scorpian Championships.

After a few hours sleep we were underway. Mal had brought back with him a genoa and a very light weight small multicoloured top sail which he made himself. The genoa replaced my jib, and the top sail, if thats the right description, was set flying at the masthead on a spare halliard, with the tack some Twenty feet above the deck and fastened to the lee bow, and the sheet taken outside the shrouds and on to a cleat via the stern mooring line fairlead. This very light sail worked well and is an idea that could be well worth developing. The combination of additional sail area and the slightly fresher wind, now at least veered North West, made for a glorious sail in the warm dawn sunshine. One headland after another slipped quickly astern until after your hours we were under Stanne's Head and entering Milford Haven. Everything about that morning's sail had been so perfect that it was with some regret that I watched the anchor go down to mark the end of the first passage.

There had not been any disasters, nothing had broken; but there were still lessons to be learned and changed to be made; but then a boat is never really finished.

Fantasy on Wade's Mountain

The full moon lays its light
On the mountain
As softly as watercolour
A white bathtub
Sits incongruously on a grassy hillside
Whisps of steam rising
From hot, soap perfumed water
Like mist over a lake.

I lie in the tub
Watched by a dolphin
Leaping from a sea of glass
And my soul floats free
From my weightless body
To kiss the full moon
Half hiding behind
The dark silhouettes of trees.

The notes from a flute
Fill the air with a rainbow of sound
'Your wine sir"
"Chilled to perfection!"
The nectar of vine
Lifts the inner eye to contemplate
The sky's canopy of wonder
Each star a cosmic question.

Back on earth
The smell of woodsmoke fills the air as
Glowing embers give back the sun's rays
To heat another pail of water
Watched by a windmill
– – –Silent sentinel
With still arms

You might comment
"What imagination you have
To conjour such a fantasy"
In reply I will whisper
In your ear
Such vision is beyond me
The fantasy was reality.

Written after a visit to Wade Doak and his family

Horace Dobbs.

Kapu Mana

We had a rough trip from Plymouth to Spain, including a force 9 cyclonic. Since Finistere we haven't had the wind forward of the beam once. We hope to leave Gomera on Tuesday toward Antigua for Christmas. Graham and Yvonne Day in their splendid Oro "TARATAI" are about three weeks in front of us. We saw their signature in the Cascais Yacht Club (Lisbon) visitors book. Also met someone in Santa Cruz, Tenerife who met them in Gib. By the way I had a copy of John Martins notes on Spain and Portugal and found them invaluable. They were sent to me by Bobin Fautley years ago but I don't remember them ever bring printed in the Sailorman. They should be. (I AGREE. Ed).

Tony Meakin

Haven Multihulls

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Church Road,
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Nr. Milford Haven, Dyfed.

Keep Dreaming...

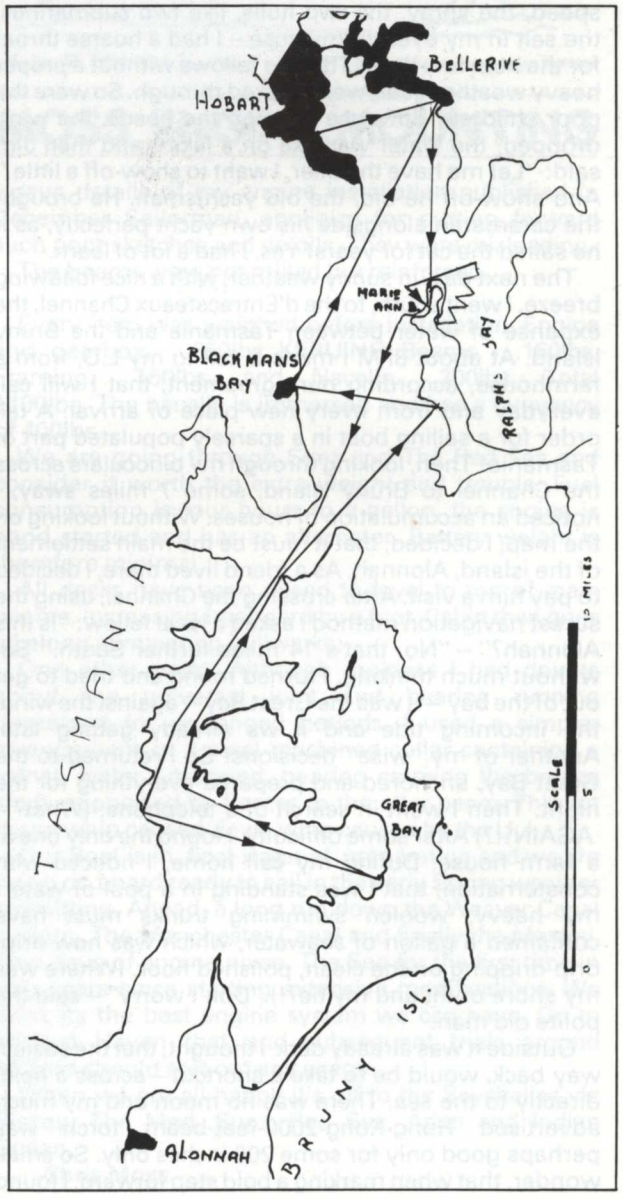
. . . was the advice given to me by Anthea Evans when I mentioned in a letter, that my TANE was still in the dream-stage.

Being Winter now – we are in Tasmania and it is July – perhaps it is a good time for dreaming about the future cruises or to recollect about the past ones, like my first one – many, many moons ago. . . .

An early morning in February. A hired lorry dropped us – my newly built catamaran, my L.O. (Leader of the Opposition = my wife) and my young son – on the beach, at the Battery Point, Hobart. Three hours later, the cat – the size of a HINA, was assembled, the provisions including a shore outfit and a tie (!) packed in the hulls, ready for . . . But wait a moment! I was so excited about the big event, that I didn't notice, that the water was slowly receding – and receding, until it was a hundred feet away. "The tides in Tasmania are negligible" – said a knowledgeable friend. Yes, perhaps in comparison with some other parts of the world. It did not help me, to be left high and dry! Next time buy a Tide Table! The boy had to race off to school and for the two of us, to drag the heavy – about 1000 lbs – boat, was too much, especialy as there was something wrong with the boat – rollers: as soon as the weight of the boat was on them, the air plugs popped out and – and so I decided to wait for the next high tide. I kissed my L.O. goodbye and prepared myself for the long wait. About noon a fellow on a motorbike arrived and had a look at my cat. Mike – that was his name – was also a catamaran enthusiast, a racing champion, who gave up racing, "Because – as he put it – I am fed up with leading the fleet!" He asked about my plans and promised to see me again.

Later in the afternoon a runabout came in and the occupants, a middle aged couple, helped me to push the cat into the water, with the help of my boat rollers. Here I learned the lesson No.2: If everything else fails, try to read the instruction book! I only did not know how to use a boat roller. We had the boat nearly in the water, when the beach became suddenly crowded with children back from school. Millions of them! In no time they were jumping around, on the cat, from the cat into the water – they were everywhere. No amount of persuasion would help. Finally, the only advice my kind helpers could give me, was to set sail and get away from there. Easier said than done, especially that there was a light onshore wind. I carried my anchor as far out as conditions permitted, then with all the kids in the way, I set the mainsail somehow and started to pull the anchor rope in. My tormentors, realising, that they loosing their toy, were jumping off the boat not unlike some little frogs. I was off at last. I nearly rammed a boat on a buoy and then the free, open space was in front of me. Across the bay, 2½ miles away, was Bellerive and a long, empty stretch of a beach – my "Target for To-night". But for the wind, being right on the nose, it was a long way. The boat was not willingly coming about – I did not yet know the art. It was already getting dark, when I reached the other shore. Out of the darkness helping hands appeared and pulled the cat high onto the beach. It was Mike, Jenny – his girl friend and another young man. Mike lived not far away, so I spent a nice evening with them and about 10 P.M. I was back at my boat. Another lesson: Start camping in daylight! Did you ever try to re-insert the rubber band from your underpants in total darkness? Well, I had about ten feet of a line pulled out from the edge of the tent, accidentally, when I tried to sort things out in the dark. With a piece of a bent wire and lot of pushing and swearing I put the line back in place. One hundred and eighty strokes with a pump followed to fill my air mattress – and at midnight, at last, I was in my sleeping bag! What a day!

Next morning Mike and Jenny came for a sail. They wanted to compare their 16 ft. racing cat with my 20 ft. x 10 ft. day-sailer. Jenny was very impressed with the double purchase on my jib, she could handle it much easier than the single jib-sheet on their PAGAN. Mike adjusted the tension of the stays and shrouds on my cat, also the rake of the mast had to be corrected. He gave me some good advice on several matters. Finally pointed out on the map the Marie Ann Bay, six miles away, as a good place for my second night "at sea". Early in the afternoon I was on my own again, with a new problem: I had to sail through a fleet of racing yachts. I tried not to interfere, but obviously I made a nuisance of myself, because somebody on a nearby yacht used a not too polite language. We were sailing parallel in the same direction. I only understood his annoyance, when I realised, that the yacht was almost double the length of my cat and I was actually PASSING HIM ON THE LEE SIDE! I was tickled pink!



Although Marie Ann Bay was a lovely little spot at the end of a peninsula it was exposed to the NW. As the weather forecast for the night and the next day was promising winds exactly from that direction, I decided to move to the Eastern side of the peninsula, into the Ralph's Bay. A long, shallow, sandy beach, sheltered by a high shore and trees from the NW and W winds. And not a living soul around. After a simple evening meal I made an early acquaintance with the inside of my sleeping bag.

During the night the wind veered to the. . . .East! So I was on the lee shore. In the morning I decided to get out of there, but do what you like, I could not get off the shore in that strong wind. So – silly me – I tried to play the Volga Boatmen and walk the cat out along the shore, back to the Western side, to Marie Ann Bay. Waist deep in water and pushing the cat by the front crossbar, I was wondering, how many hours will it take to do it, when I heard suddenly a voice: "Want a hand?" Beginner's luck! It was Jim H., with whom I was working in the same estabishment, his two children and a naval officer from the aircraft carrier HMAS MELBOURNE, the flagship of the Hobart Regatta, just taking place. "We sail her out!" – shouted Jim. The naval officer walked gallantly into the water in his immaculate white shorts, Jim was holding the boat, I set the sails and . . . . the wildest ride, I ever had even in the later years – started. Jim was attending to the mainsail, the officer to the jib, the kids were flat on the deck and I at the tiller. Firstly we tacked into the middle of the bay and when we were opposite the entrance, we changed to a broad reach. Holy smoke! Brother!! The speed, the spray, the two hulls, like two submarines, the salt in my eyes, in my nose – I had a hoarse throat for the next few days! The two fellows without a proper heavy weather gear, were soaked through. So were the poor children. But once through the heads, the wind dropped, the water was like on a lake – and then Jim said: "Let me have the tiller, I want to show-off a little." And show-off he did, the old yachtsman. He brought the catamaran alongside his own yacht perfectly, as if he sailed the cat for years! Yes, I had a lot of learn.

The next day, in sunny weather, with a nice following breeze, I went south, to the d'Entrecsteaux Channel, the expanse of water between Tasmania and the Bruny Island. At about 3PM I made a call to my L.O, from a farmhouse, according our agreement, that I will call everyday and from every new place of arrival. A tall order for a sailing boat in a sparsely populated part of Tasmania! Then, looking through my binoculars across the Channel to Bruny Island, some 7 miles away, I noticed an accumulation of houses. Without looking on the map, I decided, that it must be the main settlement of the island, Alonnah. As a friend lived there, I decided to pay him a visit. After crossing the Channel, using the surest navigation method I asked a local fellow: "Is this Alonnah?" – "No, that's 14 miles further South." So, without much thinking, I turned round and tried to get out of the bay – it was the Great Bay – against the wind, the incoming tide and it ws already getting late. Another of my "wise" decisions! So I returned to the Great Bay, anchored and prepared everything for the night. Then I went in search of a telephone. (What? – AGAIN!!?) After some difficulty, I found the only one at a farm house. During my call home, I noticed with consternation, that I was standing in a pool of water: my heavy, woolen swimming trunks must have contained a gallon of seawater, which was now drip-drip-dripping on the clean, polished floor. (Where was my shore outfit and my tie?!) "Don't worry" – said the polite old man.

Outside it was already dark. I thought, that the easiest way back, would be to take a shortcut – across a field, directly to the sea. There was no moon and my much advertised Hong-Kong-2000-feet-beam torch was perhaps good only for some 200 inches only. So small wonder, that when marking a bold step forward, I found myself suddenly some 8–10 feet lower, in a sandy hole with a heap of seaweed. It could have been worse. But I was on the beach, with another lesson learned: Don't take a short cut, if you don't know the way! Now – the important thing was: Where is my ship? I anchored the boat about one hundred yards off shore in shallow water. In which direction was she? I walked into the water: No boat. I went left – right: Nothing! The cursed Hong-Kong illuminator was of no use. Standing to my waist in the water, I was thinking, what to do? To go back to the farmer and ask for shelter? No! I was too proud for that. Walk around wet and miserable all night until the first daylight? And then I heard a sound: THE MOST BEAUTIFUL SOUND IN THE WORLD: The slap-slap of the halyard against the mast! As I was walking in that direction, even the b. . . .y torch seemed brighter and in the small circle of light I saw finally the outlines of the green hulls. I was home! – and what a grand feeling that was! I celebrated with a huge lunch-dinner-supper affair, as I did not have anything since breakfast, killed a few mosquitoes – how did THEY find my boat 100 yards off-shore?? – and fell asleep with the beautiful slap-slap-slap in my ears.

The next two days was blowing from the West: I was on a lee shore again. But no escape this time. I had the anchor rope the full fifty yards out, ("Fathoms" were too complicated for me in those days), the little, faithful CQR was holding the ground and I was riding the waves "like on a see-saw", as a farmer put it. Placing my metho-cooker right in the centre of the boat, I could even boil some water without spilling it. Progress!

It was time to return home. The weather was perfect, a light Westerly, so reaching most of the time, I landed finally not far from Marie Ann Bay, on a small beach, between two rock outcrops. I left the boat on the anchor and went – yes, you have guessed it – to find a telephone. When I came back, I saw, to my horror, that the cat was a mere thirty feet from the rocks! I removed all the loose gear, dug the anchor in on the shore, the rope secured around some rocks – the boat was now with one hull on the beach, the other being a plaything of the waves – and went for help to the nearest house. With two men we pushed the boat back into deeper water and I sailed from that place right away with the idea to reach Marie Ann Bay. But it was not to be. The wind was now very light and right on the nose, I could not make any progress. So I sailed across the bay to the other shore, to a bigger settlement, Blackman's Bay. A long beach with a reef on one end – I just managed to miss it – and strangely, mine was the only boat there. Later I found out why. Everything was ready for the night and I was just cooking my evening meal, when: HHRRRUMPH!! – and I was several yards closer to the shore. Anchor again! I switched off the stove and as I did not fancy to put the wet, cold swimming trunks, I jumped in the water in my dry shorts. (Nothing dry to put on the next morning!) The bottom was sand and rocks so I had to find a patch of sand and make sure, that my CQR is – according to its name – really SECURE. After that I did not feel like a big chef anymore – another mistake – and went to bed with a cup of tea only.

The next – and my last day of my holidays – found me back in Bellerive. The lorry driver, who delivered us to the water, refused to come: "I do not work on Saturdays" Mike saved the situation by borrowing a trailer suitable for my boat. Frantic telephone calls produced a promise from a kind of Taxi Service, that by 4 PM a car will take us home. My son arrived and with the help of Mike we managed to load everything on the trailer. At 4 PM I was told by a new working shift of that Taxi Service, that they are not permitted to tow anything. How lovely! So again Mike came to the rescue with his tiny Mini-car. The trailer was on the sand, the car on the road. With the help of a rope, Mike was trying to pull the trailer off the beach and I was trying, by jerking, to keep the heavy, unbalanced front

of the trailer off the ground. So, inch by inch, we moved Suddenly I felt a stabbing pain in my back: A slipped disc? A young fellow came to help. He put his weight at the end of the mast sticking out at the back – why didn't I think of that? – and without much trouble we were on the road and on the way home. Hundred yards before my house, situated on a steep hill, the little, gallant car, could do no more.

Next day, Sunday, all the heavy gear was removed, to make the trailer lighter and I left the hulls only on the trailer, but unfastened (Idiot!) Back at the work on Monday, I asked a friend with a big, powerful Humber for help. He came – and the trailer was soon moving up hill – too fast. The unfastened hulls were jumping up and down on the rough, country road and: "Stop! – STOP!! – S T O -0-0-P!!! – but the driver did not hear me. One of the hulls jumped off the rubber roller and fell back on it sideways, knocking a six-inch hole in the side of the hull.

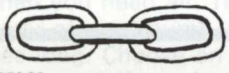
A long repair for the winter months. . . .

When my L.O. saw me after my return, she said: "That's the first and last time!" With a crook back, nearly a stone lost in weight, with sores and wounds on my feet and legs from sunburns, salt and sand and a "holy" boat – I was rather a miserable sight. Some people have to learn it the hard way!

But that was many moons ago. Since then I was on the water every year, gaining experience and L.O.'s confidence. Even the number of the blessed telephone calls was reduced to: "Ring when convenient."

ABAS ROPE COMPANY
****

Lifting Equipment,
Wire Rope, Fibre Rope,
Chains, Fittings, Tarpaulins,
Webbing.



Drake Avenue, Gresham Rd.
Staines, Middlesex,
Phone: STAINES 54788 or 55121

ABAS ROPE COMPANY, 'just have in stock', that item the super shiny go faster chandler will tell you, 'it isn't made any more.'

Tarpaulins, rope or chain, webbing and cable, snatch blocks, winches ratchet and hydraulic jacks, shackles and thimbles, bottle screws and swaged end fittings or self fit. Stainless or galvanised, made to measure or by the metre, proof loading if required.

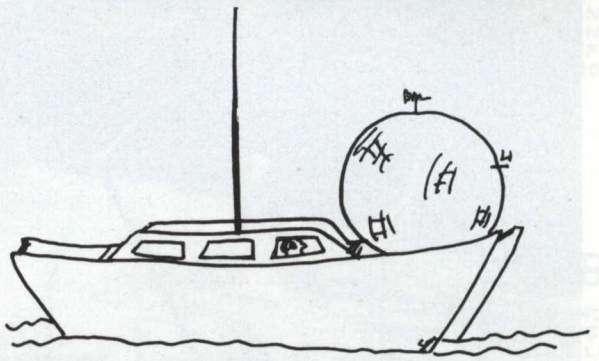
ABAS manufacture lifting equipment for the aircraft industry to curtains and lighting for the theatre. New cable for your up and over garage door or a new clutch cable for my motor bike. You want to climb a tree before you turn it it into a mast, ABAS have the gear, safety harnesses can be made to your requirements.

This is a family firm, friendly, busy but always seem to make time for minor enquiries.

No relation, honest. Ed.

The Beginners Guide to Catamaran Jargon

Catacomb. For sorting out the rigging.
Catalogue. Detailed explanation on how to turn your boat into firewood.
Catastrophe. To hang whats left of your boat on the living room wall.
Catalepsy. Falling asleep at the tiller.
Catatonic. Goes with gin, causes drowsiness.
Caterwail. The cry when your boat is hit by a very large mammal.
Catcalls. Epithets. (Not pusssy footing) used when colliding.
Caterpillar. A race round posts, (involves many legs).



Thats old Fred and his 'do it yourself' satellite navigation system

MOSS ENGINE MOUNTING

I gave details of my engine installation published in December Sailorman, apoligize for putting forward such poor sketches and details. They were misleading.

The beams were not drilled but reinforced.

Every item was weighed before installation, Engine and gearbox. . . .650lbs KERUING Beams. . . .150lbs, Framing. . . .150lbs, and Nacelle. . . .200lbs, Total 1100lbs. The nacelle is immersed and has a buoyancy of 400lbs.

We are going through Suez and The Red Sea and consider it worth the extra weight and trouble. Fuel consumption is four hours to a gallon, the engine is hand started and has an alternator. Battery weight is therefore minimal.

All decks have been raised to level to top of main beams, increasing freeboard by a foot. Cabin then goes all along eliminating bullwarks.

One other point. Although faultless I had doubts about the universal joint and bearing running immersed for prolonged periods. I used a simpler arrangement of a steel machined collar containing a tufnel, water lubricated, bearing carrying the bronze shaft, supported by frames to the after beam. This cut down whip caused down whip caused by the U.J.

Our Boat is in final stages of preparation and we are living on board ready to sail in the early Spring weather permitting. Ahead, a long run down the Weaver Canal system, The Manchester Canal and finally the Mersey, Two days of engine noise. The Sea for the first time in two years since starting extensive modifications. We think its the best engine system we can have. On to Milford Haven that and subsequent trials around Milford should sort out any snags.

When we are all happy it's off to the Seychelles via Biscay, The Med. Suez, Red Sea, Aden and Indian Ocean.

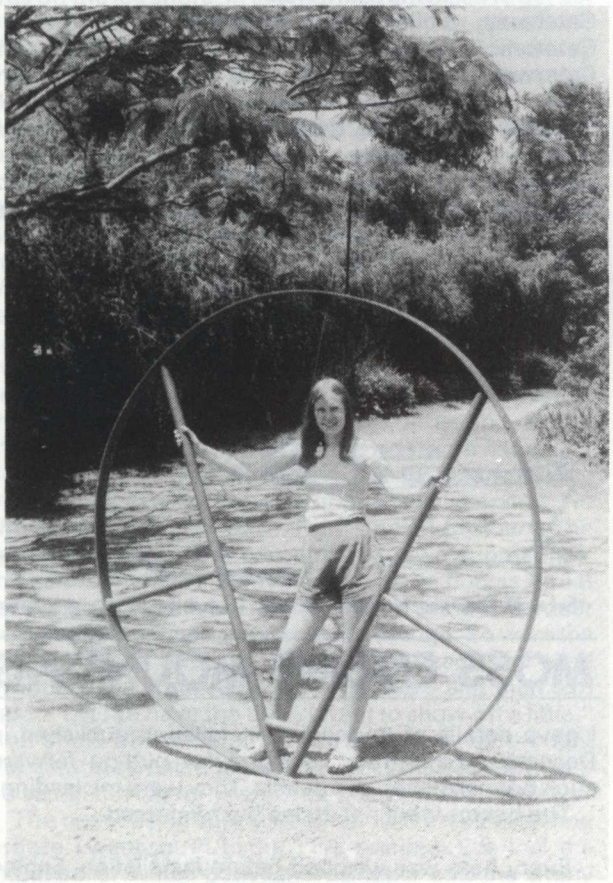
Chris Moss

Tangaroa Hulls

Dear Members,

Two photographs are enclosed which illustrates yet another re-invention of the wheel.

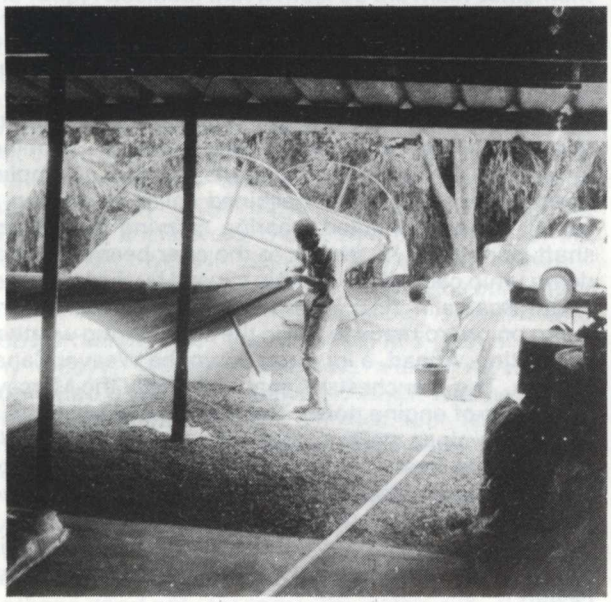
The hulls are a Tangaroa which gradually nears completion. The rings are made from 3/8'' x 3'' flatsteel strip rolled and welded. They are stiffened by 1½'' steel pipe. A cross bar is fitted across the V after the rings have been passed over the stem and stern posts.



PIA VIEWING

The cross bar is T shaped and its ends are bolted to the V. A short flange is welded to the inside of the ring to secure the leg of the T piece.

The hulls revolve with the slightest pressure. They are stable and the rings do not slip fore and oft, as was anticipated.



A PAIR OF EXPERTS

We have used a light-weight nylon cloth and resourcinal glue to skin the hulls, and two *experts* from a local boatyard were employed for this purpose.

Unfortunately they gradually reduced the amount of catalyst to lower the viscosity of the glue as it solidified. This disaster was discovered too late and we are now making the spars before facing the task of removing the spoilt material.

Yours faithfully

Professor K A Viewing
Director

Institute of Mining Research
University of Zimbabwe,
P.O. Box MP. 167,
Mount Pleasant,
Salisbury, Zimbabwe

DANIEL

HELPING HANKS SAIL CHANGE

by Edd Hajek

Here is a quick and easy method of dealng with your headsails in an orderly way with the minimum of foreplay.

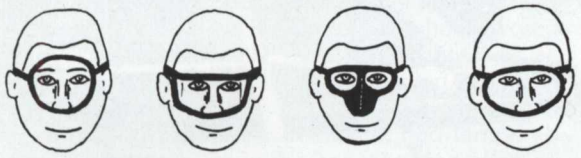
When changing or stowing headsails, leave the sail hanked to the forestay until last. Remove the sheets and halyard and disconnect the shackle, but leave it hanked to the forestay.This gives you the benefit of a second set of hands with the hanks. Using the hanks to hold the luff to the stay, pull the sail aft to get it taut. Start a zig zag fold starting at the foot and work to the head, folding the sail no wider than about 2/3 the width of the sail bag. When completed, roll the sail up to the forestay and carefully slip the bag over it. Now remove the hanks from the forestay and carefully close the bag so as to not disturb the lay of the sail in the bag.

You now have a quick-change sail. How? When the sail is ready to be hanked on, simply look for the bottom hank (a bit of ribbon or paint helps mark that one) rehank while still in the bag, and pull the bag off. Then add your halyard to the head and sheets to the clew.

DON'T WEAR IT TOO TIGHT

Choose a mask with toughened glass, not plastic, face plate, held on the rubber by a good sealing ring.

The style of mask depends upon the wearers preferences, some like side vision, some like low vision, some have prescription ground lenses, some like to be able to pinch their noses (see ear clearing, later).



There are also slightly more exotic types of mask which have purge valves, these are supposed to let you blow out any water which creeps into your mask with the minimum of trouble – each to his own, but I ended up sealing my purge valve with Araldite to stop the water getting *in.*

Your mask is the most important bit of gear, so don't be stingy with the pennies. Dive shops are used to divers spending time choosing a mask, like ladies in hat shops, and they need the business in the recession, so will probably be very very helpful.

2) **The Snorkell**

A bit of plastic tube bent into a U at one-end with a rubber mouth piece – that is the best type. Avoid fancy bell-ends, concertina middles, purge valves (see masks), long or thin tubes, and valves on the ends, especially *ping-pong balls* which can kill you when they block your breathing tube and you panic.

Too much space, or too many fancy convolutions mean you cannot clear all the water in one puff, so end up breathing in water just when you need air. The bore should be about the diameter of your thumb, and the tube about 12 to 15 inches long. Choose an orange colourful snorkell, so you can spot it if you drop it, and others can see you. Attach it to your mask, or on a lanyard round your neck, otherwise you will drop it while you are still under water.

3) **Fins**

NOT flippers.

If you want flippers, borrow a pair off your neighbourhood sealion. Fins, human style, are a flexible rubber blade with some sort of pocket in which you poke your foot. A shoe type is very good, provided you always wear the same foot gear inside it. If you always use wetsuit bootees, then get your fins to fit foot plus boot, then in warmer climates you will have to remember that without bootees on, you will need to wear fin retainers otherwise your main means of propulsion will drop off.

A simple fin is cut from the inner tube of a car tyre, (with the owners permission, of course).

Fins with adjustable back straps are fine, until the strap breaks. Jet fins get you through the water faster, provided you have legs like a commando, they are too heavy for most casual dabblers. Some fins float, so you can retrieve the fumbled fin when you miss the net on the boat, (Jet fins sink like lead.)

Make sure the fin fits comfortably, no tight spots or rubbing areas; too tight could result in cramp in your feet while under water, and anything going wrong under water can be fatal, (sometimes).

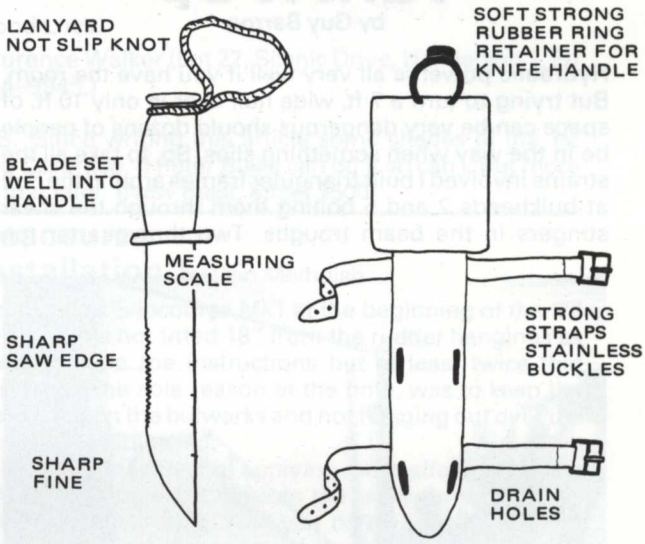
Knife

Always carry a proper knife when in the water, strapped to leg or thigh. Dive shops stock a great range of stainless knives, with the various fancy attachments, but the golden rule, as always is *keep it simple.*

The ideal knife

Use dayglow tape round knife handle, (incase you drop it in shallow water).

Some knives have a metal top to the handle so that it can be struck with a hammer, could be useful, but have you ever tried wielding a hammer under water?



Weight belt

Most men I have met have been 'negatively buoyant' when snorkelling, ie. when their lungs are full of air they float O.K., but when they breath out, they sink. So weights should not be necessary for such a person if all he wants to do is scrub of a bit of weed about 12" below the water line. However for anyone who is a bit overweight, or for most females, weights belt with lead weights if they want to get down to that tantalising lobster thirty feet below.

The weight belt is nylon webbing with a *quick release buckle.* No bits of old string, please, because, at the risk of being boring. I must emphasise that an accident or incident underwater can be fatal. You must be able to drop your weight belt in one quick movement and head for the surface should things go wrong. Weight belts are expendable items. Onto your webbing belt are threaded lead weights, home made or shop bought. *DON'T* put all your weights on the belt then jump in the sea to check if you have got it right. Start light, and add one weight at a time, balance their distribution round your waist, not all on one side. Keep it simple, no fancy buckles, extra straps, instant release weights or stones on string, please. Keeping it simple also keeps it cheap.

6) **Lifejacket**

Most of us conveniently forget the lifejacket, and really there is not one that is ideal for snorkelling. I have an ABLJ (Adjustable Buoyancy Life Jacket) which is ideal when SCUBA diving but is rather cumbersome item for just snorkelling. The best compromise I found is the carbon dioxide cartridge type which can also be orally inflated, that is, if you have any puff left to blow up the things in an emergency. Beware of hooking the dangly bits up on things or you may find yourself inflating when you don't want to, and the cartridges are rather

pricey. With any life jacket you choose, make sure it will support you in the water with your face up, the back of your head cradled, and that you cannot slip out of it when it is inflated.

7) **Other bits**

I like the Christmas tree approach myself, being of a scientific bent, so I always have strapped about my person various thermometers, depth gauges, compasses, watches, formica board with soft pencil, and little jars for collecting things in rather like an underwater fintcer in appearance. However I do recommend everyone wears an SOS Talisman. I have one mainly because I am alergic to some modern drugs, but it is meant for everyone; it is a watertight capsule in which you write all you details on a waterproof paper slip, and the strip and the capsule both have identical code numbers.

Turn It Up

by Guy Barron

Hydraulic power is all very well if you have the room. But trying to turn a 7 ft. wide hull over in only 10 ft. of space can be very dangerous should dozens of people be in the way when something slips. So, to take all the strains involved I built triangular frames around the hull at bulkheads 2 and 5 bolting them through the shear stingers in the beam troughs. Two threequarter ton

chain lifts were hired from the local hire shop and fitted to eight foot beams. Holding the beams in place with guys the chain lifts were then used to life one side of the hull until the other side was vertical. Two stays were then attached to the traingular frame at the keel and to bulks of timber under the hull. The chain lifts were then transferred to the horizontal position to pull the shear stringer now at ground level along the bulk of timber until the 'deck' side was vertical. Transfer the chain lifts to the keel side of the hull and lower the keel etc.

This method is extremely safe, the chain lifts are used slowly. One other person was involved. One operating

the chain the other checking, move the lifts evenly and slowly. 'Softly softly catch monkee.'

The London Area meeting at
THE ACTON ARMS,
296 Kingsland Road,
London, E2, was dominated
by Tanaroa Builders, but no promises
of any launches to date.

Contact: Eddie Johnson of
42, Cavendish Road, London N4
for more information about proposed regular meetings on the first Thursday of every month.

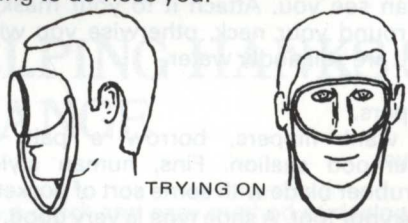
Snorkelling for cat-men (and women)

Snorkelling is not only fun, it is useful if your bottom needs a scrub, and it is essential if your prop gets fouled by an immersed and immovable object such as an anchored rope or mooring. Most cat sailors buy snorkelling gear without ever having learned how to use it, and used wrongly it can be lethal. So here are a few hints for beginners you might find useful.

BUYING THE GEAR

1) **The Mask**

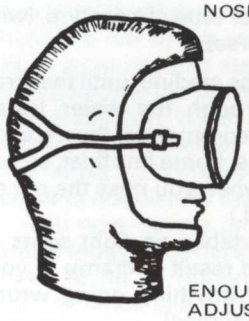
Go to a proper dive shop and spend some time trying on masks. To get a good fit you should be able to hold the mask on your face, *without* the strap, by breathing in gently. An air tight seal around your face means the sea water can't get in. The seal around the edge of the mask should be softish rubber, preferably doubled edged, so the mask sits comfortably on your face, not threatening to de-nose you.



TRYING ON

N.B. THE MASK MUST *NOT* COVER YOUR MOUTH. EYES AND NOSE ONLY.
THANK YOU.

The strap should have a wide portion divided into two at the back of the head so that the mask will sit in the right position and not be inclined to slip. There should also be sufficient strap for you to adjust it to fit even the larges head, or over a wet suit hood, or whatever head gear you fancy.



NOSE AND EYES ONLY

ENOUGH STRAP ADJUSTMENT

A James Wharram Hinemoa Called 'Owl'

by Laurence Walker of NZ

About this time last year I knew I had the wrong boat for me. The 14' windrush was physical, fast and fun but not a cruising boat as my back soon let me know.

I met a few people who had owned Wharram's, looked at a couple – all big stuff – then called on Ted Berry. He was most helpful and under his guidance, and my wives rumblings about trivial things like finishing the house, I settled on the Hinemoa. This choice would be fairly safe financially and building-wise, as experience in boats both building and sailing is not one of my calls to fame.

Of course, I am naturally obstinate, bad tempered and this served me well in the concentrated effort to come.

I received my plans about the middle of June and started on quotes for timber etc. About this time a strange nervous disorder set in and from her on my cheque-book suffered with convulsions at all too frequent intervals. The final quote for my timber was for Douglas Fir but when it was supplied it was Island Kauri, my cheque book turned purple in anticipation of the subsequent doubling of the cost of Kauri over Fir but no, somebody loves me, the same price, a saving of about $500 for the better timber (an honest quote).

Ply, again for cost, I used exterior grade Rimu Ply 7mm, less than ⅓ the cost of the cheapest marine and some of it had a really good finish which I too advantage of for some varnished surfaces. The 9mm Ply was specially selected top grade 'Mazda' imported from Japan, some of this even varnished up okay ($10 per sheet). The 12mm was again exterior grade.

The building was fairly easy even to me with my lack of skill and experience but to make sure the hulls are identical, much care should be taken with stringers. This was the only real mistake I made and an additional stringer had to be fitted along the gunnal stringer and then planed back to get the hulls identical. About one day wasted but the result was good.

All joints etc, were nailed, screwed and glued using brass and west system. The expense of west is well worth it, for glue filler and two coats inside and out before paint, none under varnish as the results here would not be good.

I followed the Wharram plans, methods and advice closely with the wooden mast made up in Kauri, seems good and looks the part.

Now came the differences, the Boom I made from a length of 4'' x 4'' rough sawn Kauri and shaped it round and this is a lot stronger than the Boom specified. I also put a 1'' x 1'' laminate along the tiller bar to stiffen this a little too. On the decks of the hulls battens were attached to give strength where people walk, also gives grip. Before these were put on the ply made all sorts of threatening noises when walked on.

Plans	155.00
Timber	570.00
Plywood	340.00
West System	500.00
Paint & Finishing	170.00
Sails	840.00
Rigging & Fittings	500.00
Misc.	225.00
Outboard	200.00
Total Cost (Approx.)	$3500.00

I think that cost can vary a little over or below these figures according to your ability to find bargains and scrounge up bits and pieces, and of course it is never cheaper than now!

I would say that the working hours 400–500 would be accurate for an inexperienced builder such as myself. Considerably less for those better equipped.

My thanks must go to my father, now retired, whose dedication and ingenuity cannot be measured. Hopefully he will also enjoy sailing with me. I also felt secure in the fact that Ted Berry was always at hand for good advice when needed.

I can definitely recommend Dave Giddens, who was only too pleased to assist with good advice on rigging and other aspects. Dave can be counted on for more than just the supply of sails and this is a rare commodity in business today.

I hope this note will help you to decide to build a Hinemoa and I am willing to assist with any advice that I may be able to give. I am only a phone call away.

Good Luck.

Laurence Walker (Lot 27, Scenic Drive, Henderson 1, Ph 814–9945.)

P.S. Since writing this article some shades of the 1st Leg Ceramco, if Peter Blake can do it so can I. But more of that later. (New mast, Kitset $500)

Seacourse Installation by Don Melhuish

I installed a Seacourse Mk1 at the beginning of the '78 season. It is not fitted 18'' from the rudder hangings as suggested in the instructions but at least twice that distance. The sole reason at the time, was to keep the works within the bulwarks and not hanging out over the drink to get splashed.

This has the effect of applying more effort due to the greater leverage but reduces the angle through which the rudder will turn. This can be countered to some extent by using 'the more rudder knob'. In practice this equipment has proven to be by far the best thing I have ever spent money on, apart from the fairer sex that is.

After putting the vessel on course using ships compass as normal one turns the Seacourse sensor compass to near enough the same reading, you then, if you haven't already, switched on and plug the actuating arm up into the socket under the tiller. When unit and ship get settled down, you will probably be a little off course, you then adjust the sensor compass a little at a time towards the direction, compass wise, that you wish to alter.

You may find that the boat, after this settling up, will still try to go off course and would need more rudder to keep it correct. This will due to the sails not being correctly set. This is always bad even without self steering as any helm at all disturbs the water flow past the boat and slows her down. So the best thing really is to learn to sail properly before using self steering devise. On calm days under engine this is no problem and if you have worked the course properly you will arrive at the other end of the pencil line spot on. It would be a good idea to practice using the gear on a calm day under engine if you have one.

On such days, if you have a dynamo or alternator on your engine, current consumption will be no problem but on long hauls, sailing, it will be. Consumption is low but it varies and down wind seems to use most. I am going to experiment with a home made towing propeller driving a car alternator.

The better you set your sails the less current you will use. I use mine all the time, the longest spell being 36 hours. With current available and an absence of breakdowns, there is no reason why it should not go on and on. You ought to have much more pleasant things to do aboard than constantly steering so nows your chance but do keep a good lookout.

The Joys of Inland Waterways Cruising

by Tim and Heather Whelan

Having rushed flat out since Christmas 1980 to have our Narai MK 4 ready for the water this year it was a bit of a blow to find out on the launch day (July 24th) that the lorry driver couldn't drive!

Our boat was, yes, in the back garden, access via a single track lane about 50 yards long. Opposite the garden is a turning circle and here the crane stood ready for action, ie for the lorry to reverse up the lane so the crane could lift one hull onto it.

But the lorry driver couldn't get down the lane although he tried for two hours (at £11.00 per hour!!) Since the crane was cashing £12.00 per hour into the bargain we decided on the lesser of the two ends and hired another crane. This came part way up the lane and picked up the hulls placed there by the first crane, lifting them over itself and onto the waiting lorry.

Thoroughly behind schedule the hulls were rushed to the wharf at Nottingham and finally assembled late in the afternoon. (with a little help from our neighbours who were no doubt glad to see the back of it!) She was then lifted by the fort and aft beams and lowered 15 foot down into the murky waters of the Trent.

Launch accomplished, but unknown to us more problems were yet to come. Nevertheless, we innocently celebrated the following day with a launching party down on the boat at Nottinghams Victoria Embankment. Thirty-odd folk and several children arrived to watch as we poured wine over the stern posts and named the boat 'Tiddely – Pom'.

Why 'Tiddely – Pom'? Good question?

We then spent ten days chasing about for equipment, loading up, fitting the tillers and tiller bar etc. Eventually we set off down river for Farndon, near Newark where we hoped to get some respite form the constant stream of visitors who were preventing us from getting on with vital jobs.

We got all of four miles to the lock at Holme Pierrepont when we had our first shock. The lock-keeper sauntered up to meet us.

"If you can't get through my 15 foot lock you won't get through the one at Stoke." He told us.

Since we are 19 foot 9 inches we clearly weren't going to squeeze through any 15 foot lock.

"Why's that?" We asked.

"Didn't you know? It's being repaired."

"Yes, but we heard that it had been repaired and boats were going through."

"It can only open one gate. The hydraulics are broken on the other and it can't be opened!"

"When will it be likely to be fixed?"

"Back end of the year, if you're lucky. . . . ."

We turned round and went back. Acting on the advice of those in 'the know' we went up to Stoke lock and had a word with the lock-keeper.

"Excuse me, I've got a 19 foot wide catamaran in Nottingham, any chance of getting through?"

"Oh no no way."

"Oh"!!!

"Well, not tonight anyway, I'm on my own after 4 o'clock, you see. . ."

We did. The next day they opened the broken lock by hand and we continued on our journey.

The main problem was we were just too wide for comfort. Oncoming hire-barges and motor cruisers didn't seem to realise how much space we needed! As we negotiated lock after lock however, we got adept at steering into the confined space, stopping the motor and leaping about with mooring ropes.

Before launching at Nottingham we'd made enquiries as to whether we'd fit through Newark Nether Lock which is just after a 90 degrees bend. The lock-keeper had nipped out in his carpet slippers one evening and measured his lock for us. Yes it was wide enough. But what about the Town Bridge? The arches seemed pretty narrow to us but we were assured that if we could get through the lock we'd get through the bridge O.K.

So we set off towards Newark. Just before Newark Town Lock there's a small concrete bridge and the river narrows to pass beneath it. Just as we approached two cabin cruisers appeared coming towards us!

Tim leapt into the outboard box to cut the engine and I steered towards the river bank. Then Tim leapt out of the outboard box, over the cabin-top, grabbing the mooring lines as he leapt for a piece of concrete jetty (which had luckily appeared amongst the reeds) and pulled the boat to a halt. The cabin cruisers waved cheerfully.

Feeling a little fraught we set off again, under the bridge and into the lock. Immediately after the lock in Newark Town Bridge, a beautiful structure to behold but as we approached it the arches certainly looked extremely narrow.

We couldn't head straight for the centre arch because there was a shoal marked by reeds extending into the channel. So we swung round them, back on course, then the current caught us and it became obvious that Newark Town Bridge was not going to be a piece of cake!

'Interesting,' is how Tim describes it now. I was aware of the cattle-market crowds gazing down at us and a little dear saying,

"What yer trying to do?" As we shot towards a pillar!

Luckily the damage was cosmetic although it sounded as though the whole boat had been demolished! We tied up nonchalantly and tried to look casual as we inspected the damage. Newark Nether Lock presented no problems.

At Cromwell the Lock-keeper assured us that we could get Keadby with no trouble on one tide. He told us to lock in on the canal there. So we set off for Keadby but unluckily the tide turned and we struggled for the last few miles in worsening weather. We couldn't see the entrance at all.

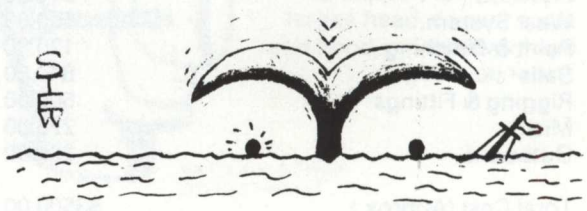
Several large ships were clustered around what we assumed was the entrance so we headed for that. As we swung round the stern of one ship and into the lock the engine cut out of its own accord right on cue.

We scraped up the lock wall, fresh moss collecting along the bulwarks and coaxed the outboard back to life and motored thankfully through the lock (it was about 22 feet wide) and into the canal.

Mooring was great fun. 'Things' were protruding from the canal bed and we couldn't find a bit deep enough at first. We had to go back to a space nearer the lock avoiding a half – sunken cabin cruiser en route.

During the next few days we raised the masts, fixed the netting and got ready for the sea. One bright fine day we left Keadby on the 7 o'clock tide and headed out into the Humber and onto a sandbank. But that's another story. . . .

"I said stay away from W-H-A-L-E-S !"



Kuaka Migrates

by S.W. Duncan

Kuaka* is a 28' Tane Polynesian Catamaran designed by James Wharram. The original design was modified by raising the bulwarks 3'' and taking the cabin sides out to them, to obtain sufficient space inside for living aboard and by mounting the cross beams on metal brackets and rubber in much the same manner as Wharram's larger designs. The stam and stern posts have been left long to enhance her Polynesian appearance. Her hulls were built by Graham Cox in Sydney while the remainder, completed in Ossie Whittley's back yard owes a great deal to his skill and craftsmanship and to the sweat of Jan and I. She was launched into Cannon's Creek on that auspiciously wet Sunday, 27th February 1976.

Jan had to be in Brisbane for University so the logical shakedown cruise was up the Australian East Coast from Warnest, Western Port to the Brisbane River. Although inevitably final preparations were squeezed by a dwindling bank balance and the onset of the nor'westerlies, it was still to have been a gentle trip, leaving with the steady sou'westerlies as the system of successive highs extended further north after the northern cyclone season. A trip that would extend neither Kuaka nor me, an ideal first major trip for both and the most straight forward, least challenging of the shakedown cruises considered; across the Tasman to New Zealand; slowly across Bass Strait to Tasmania or to Brisbane following the much frequented course 'to the reefs'.

But some attempts were made to stop me. Later there were to be times when I would wish they had been successful. Some friends tried by percussion but then joined with the many others who lent and gave gear, advice and an incredible amount of assistance to ensure the successful outcome of the voyage. The authorities were found that they were not legally empowered to do more than discuss the hazards of such a solo multi-hull voyage and asked if I'd fill out a Movement Form providing information relevant for search and rescue operations. I am pleased and grateful that this was the case and that the authorities passed responsibility to Ossie Whittley who knew me, Kuaka, and the conditions, for reporting us overdue. His ready acceptance of it added to his already tremendous contribution to this venture.

0530 Monday 3 May, I dropped the mooring at Warnest, home for the past few months, an emotionally ambient estuary of mangroves and mud flats with its beautiful solitude of feeding and flying swamp birds and that mysterious nocturnal darter, the 'cheep-cheep'* bird and the loneliness of living on a mooring cut off from friends for long periods. Then after a boisterous sail across Western Port with a freshening nor'wester we, Kuaka and I, anchored at Cleeland's Bight in the lee of Philip Island to await the sou'westerly change.

* NZ Maori for Godwit, a small bird which migrates in autumn from NZ to Arctic Siberia. It was always a stirring sight, watching thousands fly overhead at the end of summer and the beginning of winter, as they started their migration.

Wednesday.

In the grey hours two mornings later we at last ran down the channel, passed the breakers of the Eastern Entrance and for the first time nudged the swells of notorious Bass Strait. I was feeling ambivalent, pleased to be starting but uncertain and apprehensive about all the unknowns in the undertaking. What had earlier seemed simple and straight forward, now that I was committed, was becoming fraught with amazingly complex possibilities. The forecast was favourable but the swells were larger than the worst chop I'd experienced on the Bay, the wind was fresh but there were thunderous clouds building astern. Yet as the morning wore on, despite our lively almost galloping motion, we didn't seem to be covering distance and it was clear that we'd make better progress with the genoa. The first sail change, a matter of mounting nausea and precarious balancing with the safety line snagging on everything possible – cleats, hatch bolts, the sweep oar etc., proceeded in slow clumsy stages between helpless kneeling vomiting spasms. But as Cape Patterson came abeam the genoa was setting. I'd managed to cope.

1430, off Cape Liptrap was a nostalgic moment. Months earlier Jan and I had stood at the light looking out into the sombre strait, watching the small white sails of two yachts bobbing in a big ocean and imagining what it would be like to be 'out there'. Now, Kuaka and I, even smaller, were 'out there' alone and Jan was a thousand miles north as we changed course for the desolate islands and the Prom.

They were a long way off and what sun there had been disappeared. The swells were large and although we rode them in a manner which seemed quite secure I was becoming apprehensive. As Liptrap fell astern there was the feeling of a forboding late afternoon, contrasted by the sweep of white and dark wings of an occasional albatross (or large Pacific Gull?) against the grey sky and the milling flight of Mutton Birds and chicks while other more distant smaller whitish birds, also of shearwater shape, and terns skimmed the waves. Suddenly the radar reflector carried away. It had been clear that left as it was this would happen eventually but I'd expected that there would be time enough to secure it more adequately once anchored in Refuge cove. With shipping the biggest hazard (I thought) of the trip, this was a threatening event. I didn't even think of trying to retrieve it but instead looking at the swells again. They were massive, seemed all of 20', towering grey water that mounted high on the quarter with an occasional breaking crest that roared suddenly but dissipated with scarcely a wimper. Refuge was still many hours sail and possibly the light was out (it had been earlier in the season) and I kept thinking of the accusations of irresponsibility and foolhardiness for being in such conditions, inexperienced, solo, in a multihull, if something drastic happened. So as a gesture of prudence toward the critics and responsibilty toward the multihull fraternity we turned downwind for the shelter of Walkerville at the head of Waratah Bay. But once there, coming in past Bird Rock, still in the swells but almost in the lee of the land, the good reliable Seagull refused to start. Fortunately the CQR found adequate holding in fairly deep but choppy water.

Thursday.

The following day was a slow lonely reach past the awesome peaks of the Prom, dark and breaking through cloud and those solitary rocks of the Glenies and Skull and Rodondo. Beautiful isolated islands, but I felt lonely not solitary. The cold desolation, isolation of rugged rocks, sombre forbidding seas and notorious weather had, in fantasy, made Bass Strait my ideal cruising ground, solo. But the reality was different from the dream, and although aware of the immense beauty I was not enjoying it. So Refuse Cove, that sacred/story-place in the yachting mythology of the Strait was a welcome haven while human contact was restored with a tow from a fisherman through the calm the last hundred yards or so to the anchorage.

Friday.

We sailed next morning after tinkering unsuccessfully with the outboard, sorry at leaving the deep beautiful waters of the Cove but anxious to turn the 'corner' of Gabo Island before the weather broke. Although apprehensive because Refuge is the only bar-free shelter on the Gippsland coast I had few qualms about navigation. Originally it had been my intention to sail well out into the Tasman, well beyond both the shipping lanes and the Southeast Current making landfalls for only Sydney and Brisbane. The weight of advice, however, was to sail inshore of each and hugging the coast make short, little more than overnight, stages. In the event my original intention would have been unworkable especially as my celestial navigation is, as yet, completely untested and Kuaka would not selfsteer 'outside' in the swells. So, accepting the advice, from Refuge it would surely be easy to pick up the lights of the oil rigs and then that of Gabo, and Eden was, after all, only two lights round the corner. In daylight there would be no problems.

Much of the morning was frustrating with so little wind. Sails slammed and slatted while we drifted on the swells. The new Sumlog stopped working (crimping with the tool supplied had been totally inadequate), so later I would have no idea of distance covered along a coast of undifferentiated sand dunes. But about noon the wind picked up and we cleared Cliffy Island and White Rocks and later passed the entrance buoy of Port Albert making long runs toward the coast and short exhilarating reaches off. These were the last positions known with any certainty on this stage of the trip.

Late in the afternoon the wind freshened and we could lay our course gull-winged, surfing fast and exhilarating if somewhat frightening at first. The swell would rise astern and it was less aweinspiring not to look at it overhead. The sterns buried, the prows lifted out and down almost doing handstands. We'd slide forward fast, the wake a seething mass of white. Then the smell slammed the outboard box, the aft beam, the third beam, each deck support, . . . and finally passed just below the netting beam between the bows. At each there'd be a fountaining of water gushing feet high between the slats. Yes, she's a wet boat in a seaway. All the time spray coursed from the bows in sheets turned by the bulwarks and the gunwales. Then the swell would pass ahead and we'd drop back, lurch to port with a sort of bob, half pitch half roll, dip to starboard and then repeat the cycle. There didn't seem to be any real threat of broaching or tripping but for peace of mind I kept holding the less bow up on the tiller.

It was a long thrilling fast run but arm muscles were beginning to tighten. Although we seemed to have made distance, how much was uncertain and it was beginning to get dark with only a half moon rising in a mainly clear sky. The chance of getting food had been lost; I had tried once but the amount of movement below brought on nausea very quickly so I'd given up. It was the same with efforts to plot position, compounded by an inability to keep her on or near course with the tiller lines to the cabins and the rapidity with which she'd get into trouble if the tillers were left for more than a moment.

With the wind and the darkness increasing I replaced the genoa with the jib and found that if we ran at a greater angle to the swells the chance of surfing was reduced. Even so we took off once – the hardest fastest flattest run of the trip – terrifying (thrilling) – razor sharp sheets of spray from bows and log strut and outboard bracket, needle sharp water in eyes and face and it went on and on uncontrollably until we lurched out. Somewhat shaken I pulled off the jib to bring the centre of effort aft and reduce the likelihood of tripping if it happened again. Yes, I know, my reasoning was wrong, I should have done the opposite, leaving the jib and reefed the main. I did later, in fact took it right down and run under bare poles. At the time even that seemed too fast.

Large as the compass is it was hard to see from the starboard hull, and with the sky clouding over stars were little help. There was a red glow astern and a loom of lights ahead but these shifted all round the horizon so the course steered must have been horribly erratic. I thought I'd seen a refinery at Port Welshpool months earlier and the glow was similar to that at Crib Point seen from Warneet. Yet if it was Port Welshpool then we'd travelled much less distance than I'd thought. A light appeared ahead, first a loom and then an occasional flash above the swells (these had a wavelength about 1½ – 2 x Kuaka's length, 40 – 60' and an apparent height of 20 – 25' – I'll leave it to the mathematicians to calculate the height in reality!). Eventually we came up to it – a single white stationary light, but with no means of identifying it, we left it well to port. Later we came up to it again so we seemed to be turning circles. I couldn't get to the charts to check them and instead made more effort to keep the glow astern (I heard later that there were several fires on the Gippsland coast so presumably this was one).

Saturday

At about 0200 with the wind rising and the seas becoming more chaotic I dropped all sail and in the process, while balancing on the netting beam with the safety line snagging on everything, the braces of my Marlin high-topped overtrou came adrift and the whole caboodle dangled round my ankles. The sails were beating in fury, the sheets thrashing into gorgon knots, the bows rearing and dunking and when I struggled back to the relative safety of the centre decking the belt of my safety harness (Dominion Safety Products) was lying in the middle of it. While the rest of the harness with the safety line still attached was over my shoulders it was not likely to be very secure so I dispensed with it and resorting to my usual mountaineering practice tied on with a bowline for the rest of the voyage.

With dawn another light appeared in the distance and since it would assist the identification of land I wanted to close it before sunrise. I tried to hoist sail but couldn't turn her up to windward as the swells kept pushing her off. The main jammed in the stays, horribly baggy at the bottom. I did get a bit here and there on the halyard but for the most part was reduced to tears of rage and frustration, at the sails, the halyard, the boat, the seas and the world in general. But a fishing boat was coming out so I hurriedly hauled the bags into a reef of sorts (still with the overtrou round the ankles as the wretched straps wouldn't stay attached) as if I'd intended double reefing all the time.

Over optimistically I thought the light might be Eden but of course as the land became clear it wasn't. The land form did however correspond to that of Mallacoota Inlet as shown on the Cape Everard to Port Jackson chart. I had been told that I could get in very easily – 'You could get off and pull her in on a string, unless the bar was breaking' – but the pilot said that it was dangerous without local knowledge and at that stage I wasn't quite desparate enough to try anything. Later I would regret even that missed opportunity.

Instead we turned north again, running for a distant headland and another and another and another. . . a purgatory of endless coast going on and on and on. The swells getting bigger, mountainous (SE wind against SE current?), with the wind whipping the tops off and an occasional breaking crest and I was getting anxious wanting shelter. There was another settlement but no shelter. I wanted to get off; wanted the crisis that would bring everything to a stop. If the mast went or we capsised I could blast off with the flares or stream the emergency streamer that I'd been given – 'Come and get me!' But I couldn't run her onto the beach and walk off into the sand dunes. There had been a big fishing boat cruising on the horizon from time to time. Indeed to avoid obstructing him earlier I'd turned away but now since the settlement could offer no help I turned to drive hard on the wind to reach him. He turned away.

I was exhausted, reduced to an object apologetic incantation, Jan, Jan, Jan,. . . could only turn north and carry on up the coast. Conditions moderated. A Cape

appeared at last that looked like Point Hicks and an area where the sea exploded – NZ Star Banks(?) and in the distance caught in the late afternoon sun, could it be?, at last? Cabo Island. I thought so and made what sail I could. Confident, 'Yes we can make it'. The feeling, an empathy with the Negro in the Winslow Homer painting 'Gulf Stream', of the inevitability of disaster was passing. Earlier I'd reached the point when it had seemed pretty certain that this would be the trip on which I bombed out and the even worse stage of feeling an incredible anguish for what it would be like for Jan and to a lesser extent for others, particularly for Ossie who inevitably would be lumbered with much of the responsibility for not stopping me going . . . But now – Gabo ahead – another night perhaps but we'd make it.

Two lights in close proximity appeared with red and white flashes in the dusk. Hours later, closing them, we cautiously sailed round what appeared to be an island. Turning through a large course change it did in fact seem to be a 'corner' but even so we didn't take changes in case we were sailing into another bay. Since the course Gabo to Eden hadn't been plotted in advance there was the choice of skirting the land as before or, since I now knew where we were, we could cut across what I thought was Disastrous Bay. Choosing the latter we kept sailing further and further off shore, hoping to get out of the red sector of the light astern, unsure of what it was guarding, but fairly certain that the red/white change would mark the course to Green Cape.

A light loomed in the distance but it seemed to be some distance off the headland, perhaps on the end of a reef. It was not a sharp light but since it was the next from Gabo it must be Green Cape. We ran on knowing that the next light would be Eden. Sure enough, very soon a sharp red light appeared ahead, obviously the red sector in the light on Lookout Point, Eden, and with it a sweeping loom. But the wind and seas were building up and it was a case of crawl and clamber forward, fighting and struggling, cursing and swearing to get sails in with fingers pulpy and feelingless. The light swept the sky, two flashes, all over the place with the swells too great and too short to get the third flesh, but it must have been Eden! We were racing under bare poles but were not able to close the light or even keep it ahead. Putting the storm jib up increased the speed, except that the jib went aback when ever the light was ahead. Eventually, approaching closer and closer until the loom became a light, still unable to see the land, desparately anxious to get in but worried about going in blind, we bore off, turned away. Exhausted now and freezing I hauled my mountain tent around me like a bivy sheet to trap some body warmth and pushed the tillers hard down till the storm jib went aback and then put my head down on the back of the cabin and dozed (the Seawife masthead navigation light was on. Unlike some of the other gear it worked every time, surprisingly because the switch was drenched on several occasions). Whenever I came to the loom was just astern. We seemed to be keeping close.

Sunday

Several times I tried to run in but backed off for fear of ramming markers or rocks and wondered why they couldn't mark the entrances of ports more clearly. At last as it was becoming lighter and clearer we headed in but it took ages to close the light. Hours later it became a lighthouse on a headland (Lookout Point, Eden?). There was a bulk carrier which seemed to be anchored where the quarantine anchorage of Eden should be. We'd be in for breakfast. I thought. But the ship was steaming away and the light shouldn't have been a lighthouse. Other than the few stone buildings near it there was no sign of houses. While the shape of the land was similar to that shown on the chart for Eden, with beaches and bays in the right place, there was no sign of either people or fishing boats. Reluctantly I decided it couldn't be Eden. That meant it must have been Green Cape and concommitantly, what I'd thought to have been Green Cape, a ship – Hell!!! I had sailed so confidently toward that sharp red light, toward what I'd always regarded as the greatest hazard of the trip. There was still a contradiction; although the light was now clearly GpF(2) and therefore Green Cape the headland it stood on was a low red rock. I put that down to bureaucratic irresponsibility.

Sail on! All night the chart, Cape Everard to Port Jackson and my only one for the coast to Sydney, folded small and now sodden had been wedged between the cross beam and the back of the cabin. All night with wind and sea raging it had stuck fast but now as conditioned moderated a gentle slop carried it overboard. It disappeared fast. The swells were still big, indeed it was awesome watching a fully laden bulk freighter rear and plunge exposing her bulbous bows and three quarters of her waterline, as lively as a toy ship in the bath.

Far down on the horizon there seemed to be a tower with a distinctly industrial look. Boyd Tower, near Eden perhaps, possibly part of the chip mill at Eden, I thought. Hours later if became a lighthouse on a green green cape – a beautiful white sculptural structure set before solid stone dwellings, a classic romantic lighthouse. It didn't tally with the Pilot book's description. Why didn't they say Boyd Tower, which loosely fitted the description otherwise, was an abandoned lighthouse? What if the earlier light had in fact been Eden and I'd sailed past? (The effects of lack of sleep on my reasoning processes are very clear in this section.) If this wasn't Boyd Tower what was it? All the land forms tallied with the Pilot description, a bold coast, Mt Imlay (except that it was the mirror image of the sketch), cliffy headlands and sandy beaches, but no Eden.

The winds were becoming very light so the genny went up again but the double reef in the main stayed because a nut had worked off the bolt in the gooseneck and the reef lashings were virtually all that held the boom to the mast. A small coaster sailed well inshore of us, incredibly close to the cliffs and each time we rose on a swell I watched it intently, waiting for it to turn to port, into Eden. But it didn't. Instead it passed an island, identical with the Pilot photo of Mewstone Rock. The ship didn't turn and nowhere in the whole stretch of coast was there an opening large enough to be Twofold Bay and Eden. For all I knew it could be a hundred miles ahead or a hundred miles astern and all we could do was sail north. The sun was low and it was clear that I'd be having another night on the tillers, the third, and although sure, once I'd accepted that fact, that I could cope, I did want some sleep. I therefore replaced the broken mantle in the pressure lantern so it could be rigged as a single white warning light if things did become too much. Then, hoping to have the last of the daylight for re-orientation when I woke, I pulled the tent round me and freezing tried to sleep. I kept waking. The light house astern was beginning to flash so I tried to keep the sterns pointed toward it and also sleep. But it was cold, too damn cold and I woke with a start.

The west was still aglow with the sunset but there were lights. Town lights! Eden? I was skeptical but it could only have been Eden and one light was flashing in the middle. Eden had appeared where it couldn't possibly have been.

The wind was freshening and driving close hauled, for once not pinching, bearing off and off to get out of the red sector, sailing under the genoa, wishing we could shake out the double reef we drove in and I struggled to keep my eyes open. But it wasn't over yet. With a sudden crash the mainsheet block failed, a Ronstan fiddle block with beckett, cam cleat and snap link and 3500 lb breaking strain, stripping the bolt between the snap link and the block. There's clearly a lot of inadequate gear on the market and items that don't come near the claims made for them. I luffed up and lashed the boom in close hauled position and sailed in making one tack across the harbour before lining up on the leads on the breakwater to approach a crowded anchorage. With the wind dying, the outboard not working and difficulty in manoeuvring at close quarters. I didn't dare sail right in so dropped the CQR (2200 hrs) when we were off the end of the wharf and in front of everything.

Numb and overtired I gaped at the real activity of fishermen, under the flood lights, preparing their boats for sea and hoped that if I was in the way someone would help me shift. Already I was revising my intention of selling the cat (Kuaka had carried me here, some loyalty at least was in order), or mothball it, and go north returning later with a crew. In a pretty blank state I stripped off oilies and heavy jerseys, sort of stowed the sails and other gear and crawled into the sleeping bag. When I woke mid morning and crowded port was almost empty. Most of the fishing fleet had sailed and I hadn't heard anything although many boats must have passed pretty close.

Monday

It was Eden, literally, and when Jan interrupted a research trip to Canberra and drove down, and I met a couple on 'Ta'Aroa', a ketch cruising north from Adelaide, it was also Eden figuratively.

There were of course hassles and highlights on the remainder of the trip: the outboard cutting out in the entrance of Coffs Harbout with the swells sweeping us toward the rocks, going aground and later getting lost in the nightmare of channels at the southern end of Moreton Bay, finding that with certain notable exceptions that the 'brotherhood of the sea' even among cruising yachtsmen is a harbour or on shore thing only; and on the more enjoyable side, the fairy tale atmosphere of Sydney Harbour in the mist of early morning, the tremendous hospitality of friends in Sydney and strangers in Newcastle, particularly the Water Police and a person who had intended to build a Tane but was not getting a displacement boat, who gave me a mainsail and boom, spinnaker and pole etc that he no longer needed, the vigorous close hauled slog to Newcastle with Graham Cox, and the thrill of finding that he was in no way disappointed in the finished boat which he had started, the community feeling among the cruising yachts in Coffs Harbour, the satisfaction of coming across the Southport bar withoug any of the hassles I'd expected, the reunion with Jan at Redlands Bay and the final motor up the River, an anti-climax in many ways. Rather than expand on those experiences I'd better leve them for the book I vaguely think of writing and meanwhle put time and effort into the thesis I keep talking of.

The stretch to Eden was definitely the most difficult of the trip and certainly the most significant. It is fortunate that turning back on retreating was never an attractive possibility; the worst was always astern and the best always ahead. One question does not need answering, would I do it again? The obvious answer is NEVER but while I was writing this I kept remembering the clarity of the sun on certain distant, rocky solitary islands and the reflections of the bush in the clear waters of Refuge and. . . But I think I just might learn to sail Kuaka with more proficiency before formulating more definite plans.

The success of this trip, solo and all as it was, was due in no small measure to a vast amount of support, advice and assistance in many many ways from many friends. To all of whom I am deeply grateful and particularly to Ossie and Jan for such immense contributions that there is no way in which I can adequately express my thanks.

Growing up on the Auckland waterfront and living just above Westhaven boat harbour, it is not too surprising that I became interested in boats and sailing. But small craft and voyages in them are born in dreams. If Wharram's 'Tane' design was conceived in a North Atlantic gale then 'Kuaka' is the offspring from the mating of boyhood dreams on the waterfront and an adolescent interest in Maori culture which grew to become my professional occupation, anthropology. Fascinated by the academic debates on Polynasian and other systems of indeginious navigation (notibly those of Arabs and Vikings) I was anxious to do some work in this area. But it is one thing to read the books and debate the theories in an eleven storey air-conditioned office and another to appreciate the information on a small yacht, on a dark squally night with the stars obscurred by skudding cloud and an awareness of swell patterns obliterated by mounting nausea. This latter perspective seemed vital to a proper understanding of the material.

Although I'd spent many hours with very experienced seamen, Mark Anthony of 'Rangi', (3rd in the first TransTasman) and Ossie Whittley of 'Silhouette' designer and builder of the very successful 'Jedda' and 'Kestrel' trailer sailors, done a lot of maintenance and building work on boats, I had little actual sailing experience. There were a few summer holidays pottering in a clinker sailing dinghy on Waiheki Island and, more recently, a memorable trip into Bass Strait in a 22' bondwood Jedda, 'Erith', but it was clear that if I wanted practical sailing experience relevant for understanding nonWestern navigation I had to have my own boat. After a lot of searching it seemed to me that James Wharram's 'Polynesian Catamaran' designs were the closest western analogues to Island canoes and probably the safest cruising multihulls available. Eventually the dream of having a craft as similar as is feasible in this part of the world to those of the Polynesians became tangible in the form of 'Kuaka', and the dream of gaining an empathy with the sea like that of relevant people who begun with a coastal cruise to Brisbane.

NWMA 1982 RACING AND CRUISING SCHEDULE

(Includes rendezvous and races)

Below is a list of on-the-water events for the coming year. In addition to those scheduled by NWMA, we have included the Seattle Yacht Club major races that we participate in and the Sucia Island cruise (and probably race) with the B.C. multihullers.

Several of our NWMA rendezvous this year will also include a race. We hope that those who are not particularly interested in racing will nevertheless want to attend these events. It's always nice to have a cheering section, and since we're starting to be a little more serious about our racing, we'd like to have a committee boat with timers aboard.

The location of the annual picnic has not been decided, although Lincoln Park and Ed Munco-Seahurst Park are being considered. Suggestions for this event, or any other are welcomed. Please contact Yvonne Dean, or one of the officers if you have comments about the schedule.

Event	*Date*
SYC Point Hudson Race (60 nautical miles)	June 12 & 13
Eagle Harbor Rendezvous & Jack & Jill Race	June 26 & 27
Sucia Island Cruise with B.C. multihullers	July 4th weekend
Annual NWMA Picnic (location to be determined)	July 17
Blake Islands Rendezvous & Singlehanded Race	July 31 – Aug. 1
Gig Harbor Rendezvous	August 21
Hogshead Regatta	September 5
Port Orchard Rendezvous	September 18
SYC Hat Island Race (42 nautical miles)	October 9 & 10
Poulsbo Rendezvous	October 23

Anchoring techniques that work

Randolph Thomas looks at ways to keep multihulls in one spot

Many people think they know how to anchor a boat in tricky situations such as in a crowded or exposed anchorage. Some of them can do it expertly; others *think* they can but always seem to have something "go wrong" just at the crucial moment. And then there is anchoring a multihull safely in a windy anchorage. Believe me it can take all the skills any sailor can muster to park one of these sometimes-skittish critters safely. There are a few tips, however, on how to do it correctly. Some I have learned the hard way, like the time I discovered how to handle a good breeze and choppy sea at the same time I was anchored on the south shore of Vancouver's English Bay off an open beach. Two hours earlier we had enjoyed a quiet breakfast but now it was blowing up to 30 knots out of the northeast and a swell was also beginning to build. My 31-foot trimaran *Celerity* was rolling wildly with her floats, or amas, rearing and plunging with hard smacks on the water. My eyeballs danced in their sockets.

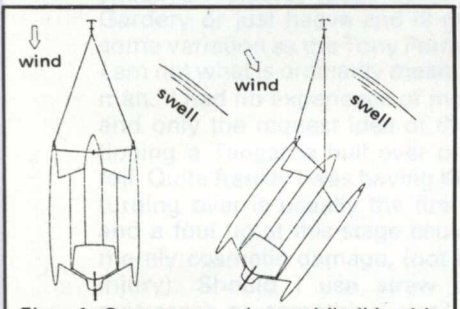


Figure1: One way to anchor multihull is with twin anchor rodes, but when swell starts coming in different direction from wind, relieve rolling effect by moving one rode to main bow. Procedure can be followed using bridle arrangement in similar fashion.

I quickly checked the chafing gear. No problems there. Even though the twin anchor rodes were bar taut, the snatch blocks on the bow of each wing afloat appeared to be under little strain – the results of light displacement and dividing the mooring stress in half. The Tahiti ketch rolling ponderously off the stern quarter looked close but no closer than before. Water broke white over her bowsprit as she dipped to the big ones.

The next moment I was nearly airborne as the port float or ama dived into a trough and "sounded" to the rail. I scuttled crabwise across the bow net to the starboard ama, opened the snatch block, and cast off the rode. *Celerity* fell back in a half-circle as the slack paid out, slewing across the wind as the jackass bridle between the port ama and main hull took hold (Fig. 1).

The effect was starting. The tri rode comfortable with no hint of rolling, pitching gently as she faced the swell. With sanity thus restored I ducked below to pour a cup of tea and reflect on another anchoring lesson learned.

I have learned many lessons over this past year. One concerned the proper ground tackle requirements for two- and three-hull craft. Unlike heavy displacement monohulls, the modern multihull has little need for anchors as big as mooring blocks or chain in 50-fathom lots. In fact, an all-chain "chain locker" will cripple any multihull as surely as pouring cement into her bilges.

Nylon rope linked to a few fathoms of chain works well *if* a sliding weight is also shackled to the rode and lowered over the slide. Once in position just off the bottom, this weight imparts a long horizontal pull to the anchor that a rode alone is incapable of doing, no matter how much is paid out (Fig. 2). You can increase holding power and reduce scope with a weight such as a fisherman's "cannonball" or small closed grapnel attached to the anchor rode. This can prove valuable in a crowded anchorage.

Figure 3 gives the ground tackle requirements for multihulls, from daysailers to 40-footers. Monohull sailors may be stunned but the gear listed in the table is more than adequate for multihulls in most conventional situations. For an indication of the safety margins involved I have held *Celerity* off a beach against a strong flood tide with two short lengths of one-quarter-inch polyprop secured to an eight-pound grapnel in a bridle off the stern! Remember, you're tethering a light aircraft not a trailer truck.

However, the table does not indicate stowage arrangements. A daysailing cat wishing to anchor out rather than beach at night should carry anchor and rode in separate hulls to distribute weight low in the boat. A small tri should carry her ground tackle in the main hull; a small grapnel (folding anchor) is best for these boats, being more compact than a Danforth of equal weight. A tri should have two mooring cleats through-bolted to the fore- and after-decks. The cat can secure her anchor warp directly to the forward or after crossarm.

Multihulls in the 25-foot range and up present other possibilities. Although it is alway better, in terms of trim and sailing characteristics, to show heavy objects low in the bilges, I prefer to carry my ground tackle on deck where it is readily accessible. On *Celerity* we stow our main anchor in a foredeck locker with the bitter end of the rode led below and secured to the keelson. I like the plough in this role because of its helft, superior penetration in weed and mud bottoms, and its ability to reset itself without fuss on a changing tide. However, this kind of weight carried in the bow of a narrow hull is barely tolerable and I recommend that anyone building a trimaran place the anchor locker just ahead of the mast and/or main cabin, even if headroom below has to be sacrificed.

Our sliding weight, a light grapnel, is carried back on the quarterdeck. The 12-pound Danforth is stowed on the starboard side deck, aft. The bitter end of its rode is belayed to a six-inch cleat on the transom; the coils are attached with slipknots to eyes on the after crossarm behind the cockpit. The Danforth is our *instant use* anchor. It can be rowed out easily in the rubber dinghy. It can also be dropped off the stern in an emergency or for brief lunch stops. Incidentally, anchoring by the stern is the simplest and most effective way to stop any multihull. Catamarans and trimarans quickly lose their skittishness when anchored in this manner, though the anchor rode should be transferred forward in heavy weather and when you are retrieving the anchor.

Adequate ground tackle is one thing, its proper employment quite another. And my inaugural anchoring attempt was made without fanfare, in the best tradition of a lubber faking experience he does not possess. I ghosted into a deserted bay and casually lowered my plough and 100 feet of line into seven fathoms of water. For a while *Celerity* hung demurely to the weight of her anchor and chain. But when the tide turned that night and she casually dragged toward shore I discovered that the 5:1 minimum scope rule applies even for beginners!

The next effort was in a chilling rain squall with darkness coming on. I set the plough close inshore on a long bridle and we stood watch-and-watch that night, taking turns to monitor the bearing of a nearby light as *Celerity* danced in the swells and wind hummed in the rigging. When first light burst in golden rays above the surrounding island we knew we had found the key to multihull anchoring.

That key is the *bridle,* something the myriad articles and chapters on monohull anchoring techniques never mention. Monohulls don't need bridles. Given enough anchor weight you can nobble even a deep-laden freighter, but a multihull will continue to sail, even with her sails furled. Put her on a single bow anchor with a bit of breeze and contrary tide and she's like a puppy on a leash, first sallying over to make acquaintances with that sloop you thought was moored a safe distance away, then sheering off to investigate those rocks just off the beach. To stop this nonsense *rig a bridle.*

I do it like this: After I set the plough with a minimum 5:1 scope at *high tide,* I remove snatch blocks from the genoa tracks and clip them to padeyes on each and bow. I then lead a 25-foot nylon line through each block. Next I pay out the anchor rode until the bridle rides 12 to 15 feet from the bow and I allow the bridle to take most of the strain. Now the boat is free to swing to wind and tide, but the bridle prevents her from cocking sideways and "sailing" along her rope. I consider the bridle as much a part of multihull seamanship as adequate winches and water deflectors around float hatches. The bridle can also be used with good effect when lying to a parachute sea anchor or when trailing a drogue astern.

In special situations which often occur along the Pacific Northwest coast, I use the Danforth in conjunction with the plough to limit swinging radius or to ride out a blow. Set to a slack rode and cleated aft, the Danforth allows the boat to adjust to minor variations of wind and current while keeping her off nearby obstructions.

However in a strong breeze and veering tide a boat can become hamstrung between her two anchors, imposing great strains on boat and gear. If this occurs lead the bower rode through a snatch block on one hull, then transfer the kedge rode forward to a snatch block on the opposite bow (Fig. 4). By adjusting this bridle the boat can be swung to ride any combination of wind and swell easily. Of course if the wind abates and the tide turns the boat will swing through 180 degrees, twisting her anchor lines. To remedy this, pass one line under the other and lead it back through its snatch block.

Whether you use these methods or the more familiar Bahamian moor in which two anchors are set in line with the tide and cleated at the bow, *always* put out a second anchor when leaving your boat untended.

My logbook shows many quiet days and nights spent at anchor in the bays and inlets of the British Columbia coast using these techniques. But all these examples presuppose a well-set anchor and on a light-displacement multihull, this means sailing the anchor in. In dead calms the anchor can be set under power in the same manner.

Preparations to anchor should begin well before the end of the day's run. Check the chart for a likely anchorage: one that offers at least a partial lee to the prevailing wind as well as a clear escape route if it blows up and you have to get under way (maybe half-asleep) at night. A sand or mud bottom is preferred. Check to see if there are any underwater obstructions that may cause you embarrassment at low tide. Check the tide tables to see how closely your arrival coincides with high or low tide. A sailor with a multihull drawing 32 inches will look for shallower anchorages than those sailors with her monohull sisters.

As you approach an anchorage, place the main anchor on the side deck ahead of the shrouds. Eighty feet of rode flaked along the deck for free running usually is adequate. The anchor handler should wear a

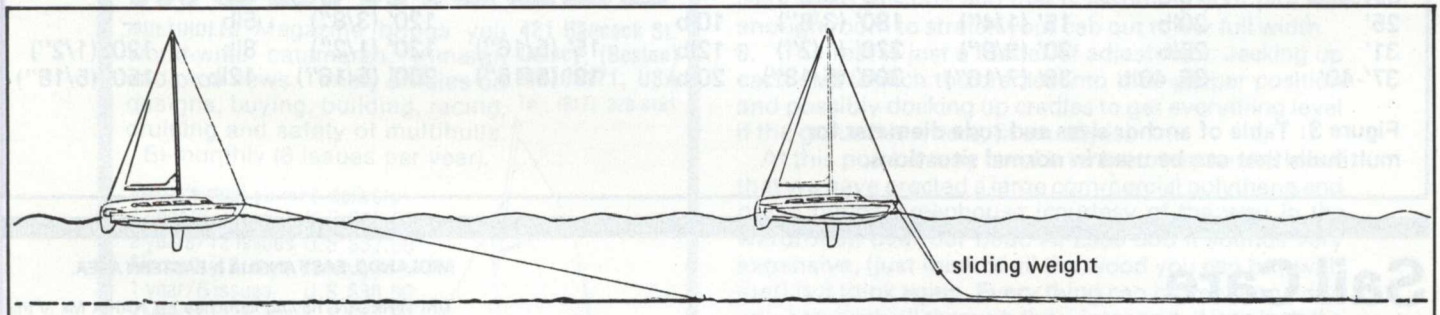


Figure 2: Sliding weight keeps anchor rode on bottom increasing ability of anchor to dig in.

knife and be acutely aware of the rope coiled like a snake at his or her feet. One sunny afternoon I was given a chilling flashback of my life history while being dragged over the side with my foot caught in a bight of the anchor line. Although I managed to grab a shroud it was only *Celerity's* light weight and slow forward motion that saved me.

If there is any breeze, the main should be dropped and the final run be made under jib, broad off the wind. As you approach *the spot* determined by eye and depthsounder, the boat sould be moving at two to three knots, jib luffing. On signal from the helm the anchor

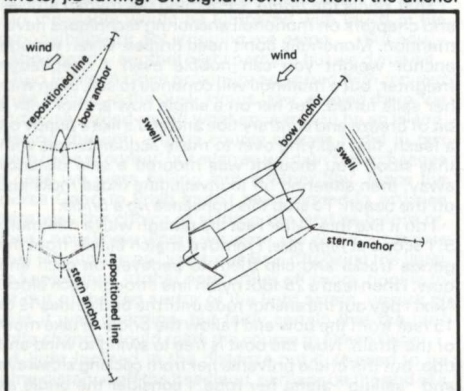


Figure 4: In situations where there is bow and stern anchor and swell starts coming in, compensate by readjusting lines as shown so that anchors lie off either bow

should be dropped – not thrown – over the sides, flukes facing forward. The line will snake out rapidly. When a length three times the depth of water has run out, snub the line momentarily, release another dozen feet, and snub hard. The anchor should dive into the bottom and *grab* with enough force to slew the boat around into the wind. When this happens you *know* the anchor is set. As the boat comes head-to-wind, release the anchor line, pay out the proper length of scope off the bow and secure the rode to the mooring cleat. Drop the jib and assess your position. If you are uneasy re-anchor *now,* not at midnight when worrying won't let you sleep.

If you're satisfied with your spot, relax and look around. Try to *feel* the boat's berth in relation to compass heading and conspicuous landmarks. Watch how the bearings change as the boat veers and comes back again. If conditions are calm and the tide slack the anchor line will hang limply off the bow. Don't worry. As the tide takes hold, your boat will straighten herself out. If it's blowing at all you'll be sure that you're dragging. Remember, *if it isn't screamingly obvious that you're dragging – you aren't.* The anchor that stopped you under way a few minutes ago will probably hold you at rest now. Make a mental note that with 130 feet of rode out your swinging circle will be nearly 100 yards. This knowledge might save you from leaping naked on deck in the morning when the view outside the cabin

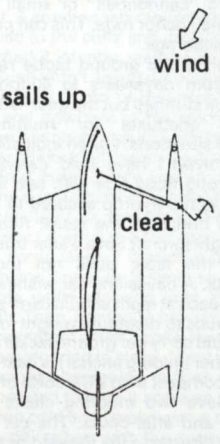


Figure 5: To get main anchor out, get sails up, take anchor rode over to one side and pull in until rode is vertical in water. Then slowly start sailing away and anchor should break out.

windows has radically changed. Put some chafing gear on the anchor rode and set your sliding weight. Ring a bridle or put out a second anchor if you think it is necessry.

The first time I attempted to sail our plough out we were given a vivid demonstration of its holding power. Without bothering to take up the rode we hoisted main and genoa and took off on a beam reach. The rode tightened and *Celerity* gybed twice around her anchor without moving the anchor in the least! Yet multihulls, with their spacious side decks and quick acceleration, make sailing out an anchor quite painless if a few simple steps are followed.

If you have a kedge out, retrieve it by paying out on the bower until you are directly over it. Clear the kedge rode tightly and the boat's buoyant up-and-down motion will usually break it out. Stow the kedge. Heave in on the main anchor rode until it is almost vertical. Stop. Hoist the sails, allowing them to luff freely. Now walk the main anchor rode over to either side deck – whichever position swings the boat away from shore, moored neighbours or other obstructions (Fig. 5). With the rode *straight up and down* cleat it and slowly sheet in the sails. The wind coming off the forward quarter will supply enough power to break the anchor out immediately. Maintain headway, luffing the sails, as the anchor is brought aboard and stowed. Then sheet in, with the pride of a seemingly difficult manoeuvre neatly executed under sail.

In anchoring as well as sailing, multihulls require a special touch. And as your high-spirited craft heads out toward her next anchorage, you should understand that these techniques soon will become routine.

boat length length	main anchor	chain	nylon rode	second anchor	chain	nylon rode	sliding weight	spare rode w/shackle
daysailer	10lb	–	110′ (3/8″)	–	–	–	–	–
25′	20lb	15′ (1/4″)	180′ (3/8″)	10lb	–	120′ (3/8″)	5lb	–
31′	25lb	20′ (3/8″)	220′ (1/2″)	12lb	15′ (5/16″)	120′ (1/2″)	8lb	120′ (1/2″)
37′-40′	35-40lb	38′ (7/16″)	300′ (5/18″)	20lb	19′ (5/16″)	200′ (5/18″)	12lb	150′ (5/18″)

Figure 3: Table of anchor sizes and rode diameter for multihulls that can be used in normal situations.

Sail Care

by Floyd Moore

After some thought about my 6 years of trying to keep sails going in the tropics, I definitely came to the conclusion that the most important thing one can do is keep those expensive pieces of material covered when not in use. A close runner up might be to prevent any flapping or flogging, as it not only shakes out fillers (almost all sail cloth has fillers), but also loosens and abraids stitching.

There always exists some places on a boat that chafes or cuts into sails, such as spreaders, bolts, or cotter pins. These little buggers can be attacked withsilver duct tape and other devices to smooth and enlarge the chafing surfaces. I like Jim Brown's tennis ball spreader tip covers as one creative solution.

The weakest link in most sails is the stitching. When sewn, the sail stitching "stands proud", sticking out for the sun to rot and anything to chafe and abraid it. Even dried salt crystals can chew on the stitching.

When the time comes and the threads are tired, take "your neighbours zig zag" and go over the seams with a row of stitching. It will add years to that genoa.

So how do we clean up the sail's act (are you reading this Kepner?) Mild detergent and a brush (careful on the stitching) in the bathtub or dinghy works well. Rust stains disappear with a solution of oxylic acid, and a mild Cloroxsolution will help remove the mildew stains that formed from stowing that wet sail too long. Remember, plastics are not normally bothered by acid, and it is plastic that we are speaking of.

As a last thought, the things I found most useful in lieu of taking a sail loft are:

(1) One roll each of waxed sail thread and unwaxed sail thread (great for all kinds of lashing) (2) Needles (3) Sailmakers palm (4) Jib hanks (5) Main slides (6) Scraps of material (7) Silver duct tape (8) MONEY!

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MIDLANDS, EAST ANGLIA & EASTERN AREA.

TIM WHELAN, having launched his NARIA Mk *iv* this July is no longer able to serve as Midlands Sec. He has passed file and function over to PETER GREEN. We have attempted to hold regular meetings but understanderbly rocketing fuel prices etc. people are reluctant to travel more than a few miles just for a chinwag. However if you are in our area and thinking about it, (boatbuilding) Halfway through or even launched, maybe just feeling sociable please write and hopefully we can arrange a meeting.

Our function as we see it is not only social but practical and we are keen to help in any way we can. If you are stuck, write, we might have a useful idea or know of a discount source for parts.

We are here, we are keen, DROP US A LINE.

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HULLTURN OVER

Dear Editor,

In the past many members have contributed articles on construction experiences and methods but very few on turning the hulls over. Tony Perridge wrote an excellent account back in 1977 (see page 22 June 1977 Sailorman) and there is another account in 'In the Wake of the Sailorman' by John Agrew on page 66. The methods described are quite different, one using a long pole as a lever and a small wife (invauable these wives) to put chocks under, whilst the other used a war of presumably unskilled but willing labour. There must be many of us who hesitate to entrust our pride and joy to a well intentioned but possibly ill co-ordinated group and doubtless not all of us can raise eight or more *WILLING* helpers, (Back ache, Sloppy, Dizzy spells, Gardery or just heave and ill grunt') So we resort to some variation as the Tony Perridge theme, man. 'Now I am not what is ordinarily meant by the term 'a practical man.' I had no experience of moving heavy structures and only the request idea of the stresses involved in tipping a Tangaroa hull over onto a shock absorbent foil. Quite frankly I was having Kittens about it. After all turning over is usually the first cugsis in a boats life and a foul up at this stage could do much more than merely cosmetic damage, (not to mention the risk of injury). Should I use straw bales, old tyres, old matresses or something else? The question chased round in my brain without anything more than a tentative answer.

Tim Whelan, who launched his Narai IV this year having turned over both hulls single handed, gave us his cradles and came to the rescue. We did it as follows:—

1. Clear as far as possible level the site. Ours had a lot of builders rubble, brick ends and lumps of concrete etc, in the grass and these obviously had to be carefully found and removed.
2. Work out where the keel will fall and place your shock absorbers in position. We used scrap tyres varying from large to three ton truck seige in a row five lorry and three deep, (remember this is for a Tangaroa and larger hulls may well need more. Most tyre depots will give these for nothing since they are of no value and only have to be taken away and scrapped. Now if space is limited you can reduce the scope of her hull by sawing off the legs on the appropriate side but make sure she is very firmly clocked up and stuff some tyres under the gunwale to protect it. Just a row one or two deep should be sufficient.
3. Tack up the row leglers side and remove the chocks in stages lowering the gunwale onto the inner row of tyres. This will give her a list in the right direction but not enough to make her unstable unless you have used legs much longer than those shown in the plans..
4. Now go round to the other side and begin to jack up putting drocks as you go until the jack is noticeably easier to operate. You are now approaching balance point.
5. Tie a length of rope to the jacked up side using over or more of the legs positioning it to give a fairly central pull and take the ends over the keel to a havdilsilly or some double blade arrangement which is itself bent onto either a stake in the ground or some convenient 'Samson Post' such as a tree trunk, (But not a sapling). The blocks will give you greater purchase and thus better control.
6. Pull her over. If you have jacked her up for enough she should flop over without much effort and if you have built her properly there will be no creaking or groāning, just a loud bonk as she hits the tyres.
7. From this position four or at a rush three people can raise a Targaroa hull to upright without mechanical aid and two can support it without effort once it is in equilibrium. Your cradles can now be slid under. Put the foreward cradle into position first as the stern cradle will have to get past the skeg which will probably involve some jacking up. Strong cradles are a must as if you didn't know, but think how many times you will dive in and out of that hull before you can get the arois lseurs into position and that is assuming your plot has enough room to stretch your cab out to her full width.
8. The rest is just a matter of adjustment. Jacking up each end to inch the cradles into their proper position and possibly docking up cradles to get everything level if the ground is where, (it usually is).

At this point it may be of interest to readers to know that we have erected a large commercial polythene and metal houpe greenhouse (courtesy of the wau in the wardrobe), over our boat. At £360 odd it sounds very expensive, (just think of all the wood you can buy with that) but think again. Every thing can be kept bone dry, you can work all through the winter and, if you install a suitable heater, even glue with frost on the ground. And when it has served its purpose you can sell it, either to a local farmer or of course to one of us. Obviously you will not get all your money back but you should recoup enough to make it well worth the money.

'International Polynesian Catamaran Meeting 1982'

I have just had the following news from Jannik Cortsen, re. the meeting in Denmark:

"The meeting will take place in Korshavn on the northern tip of the island of Fyn from 23–25 July 1982. It is a natural harbour and the boats lie at anchor. Anyone is free to stay as long as he likes. It costs nothing.

"Water is ashore, and food supplies on a camping site close to the harbour. It is really a beautiful place."

For further details – if need be – write to Jannik Cortsen, Bakkely 26 DK – Munkebo, Denmark.

MULTIHULLS

MULTIHULLS Magazine brings you world-wide catamaran, trimaran and proa news. Timely articles on designs, buying, building, racing, cruising and safety of multihulls. Bi-monthly (6 issues per year).

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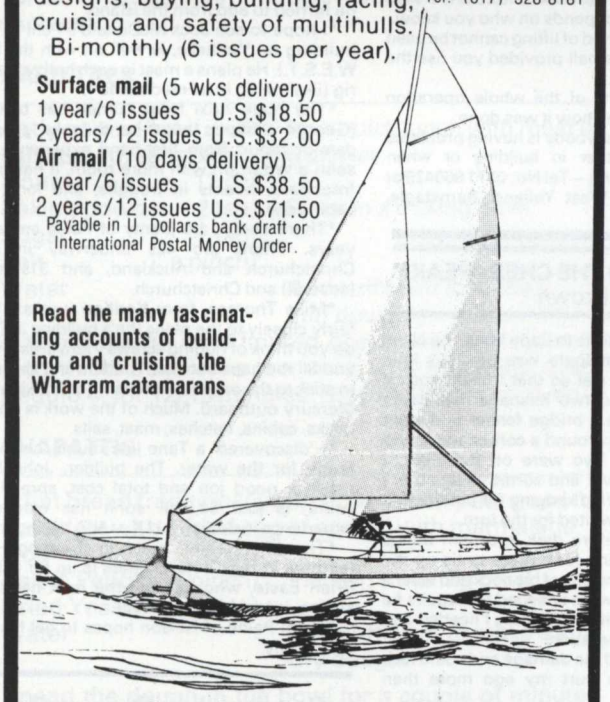

An age-old monohuller aboard Faoileag.

BY TED STROEVER.

That English is not my mother-tongue you will soon enough realize. That I have been a monohuller so far you will realize easily by my kind of remarks. Whatever I am going to tell, it must be seen as a two decade's influence of cruising in cayaks, canoes, jolls, light and heavy displacement yachts. However, I didn't find my ideal cruising boat. It should be able of crossing a stretch of ocean as well as pottering bays, monohulls can't enter.

Therefore I have found Jim's creations very tentative. But before investing a considerable sum I wanted some experience.

What would life be like in a relatively small cabin?

Wouldn't it be too wet, sitting on a hull, instead of in a hull?

What about seasickness on a polycat?

How about anchoring and mooring techniques on a fast drifting boat?

Well Tony, you looked for a crew, I looked for a test-sail. I am glad to say we both got what we wanted. (DON'T HESITATE TO BOOK FOR 1983. Tony is an excellent cruising man and the most kind captain you can find.)

When I saw 'Faoileag' first, she appealed to my eyes at once. Tony has done an excellent painting job; light blue hulls, a broad brim of dark blue, white cabins and masts. She looked as well as all my cayaks and canoes had done – the perfect imagination of ancestors, formed by the needs of nature.

Walking on a deck instead of cross-country that was new. I began to feel at home. Well the cabins really were tiny, the bunks like heaven. A nice boat for two or three persons.

When we left Caledonian Canal two days later, there was little wind so the two locks were no threat. Sailing in light winds was plain fun. Her cruising speed was 150% of that of the 10m, 5 to monohull I own with my brothers. When the wind increased and was dead astern, she was capable of 200% – about 11 knots – but we preferred to reduce sail and strolled along with 5 to 6 knots, life behind the helm being much more easy than on my monohull. Nevertheless I got seasick. No fault of 'Faoileag'. On 'Friesland' it would have been the same. Three days later on the crossing of the North Sea. Again the balance of effort against speed was in favour of 'Faoileag'; I was seasick again, but felt much safer on 'Faoileag' than on any other vessel I could remember. Relaxing on my bunk without looking for a piece of wood I could clench my fists to, monohulls were out of discussion.

Life in Norway was great, as the weather was great too. Three days of rain and cold in Stavern would have spoilt much. Such a vessel needs a decktent, that can be erected in a matter of seconds – or plenty of luck. Therefore I was very glad when Jim told me of his new range, which will have an incorporated decktent as well as a little windbreaker to give some shelter when under sail.

He showed some studyplans and caught my heart. The new 26' will be the ideal cruiser for my wife and me. Trailerable, beachable and safe for coastal cruising. Much thanks to the Wharram Associates.

On the journey back I was seasick again. But my mind was clear enough to realize that in a force five she would go to windward as efficient as any monohull, designed for real cruising. And wet it would have been on a monohull as well. Nevertheless one needs one's oilskins earlier on a polycat.

The nice Scottish harbour Portsoy proofed the advantage of two hulls over a deep underwaterbody. We were moored in knee deep water at the entrance of the harbour whereas a little attractive looking sloop had to be secured by a lot of wharps to prevent her falling onto the sand of the basin.

The last three days from Peterhead to Inverness were most attractive to me. Fair wind, calm water and a beautiful scenery to look at. That's life to me!

After a three weeks cruise I turned out to be a convinced multihuller. No, more exactly I have become a member of the PCA-family. Thank you Tony, thank you Crispin and thank you Jim!

For the systematically minded amongst our readers I give a short description of the relative advantages and disadvantages of various boat types.

The cayak:
Great adventure in coastal cruising. Slow progress, no progress in a force 4 dead ahead. It's not always easy to find a good place for the tent. It will be nice to have my 'Faltboote' aboard my polycat.

The canoe:
Great for creeks and rivers. Unfortunately it demands long journeys by car to find rivers in Europe, still worth while to go down.

The cruising joll:
Little maintenance but great pleasure for cruising on rivers and along the coast. Little safty margin in coastal cruising.

Light displacement sloops:
Fast but not very comfortable. Need too much sail exchange for a lazy guy like me. Normally poor and unsafe ground tackle. Attractive only for marina hoppers.

Heavy displacement sloops:
Rather comfortable. Much work needed when sailing and high maintenance costs. Good loading capacity, no trim problems.

Polycats:
Capable of going anywhere where there is water. Easy to sail, tricky in harbours and marinas. Rather wet. A good deck tent is a must in northern climates. Now my favourite. Jim, hear me, I am waiting for plans. (Does anyone like to buy a Cornish Coble?)

TANGOROA LAUNCHING

When the great day of launching nears, ones mind turns to the problem of how to move her. I did not go much on the idea of taking her apart and re-assembling her. I was told that I would need spreaders and numerous strops and lots of other weird and wonderful methods of lifting her, but it all goes back to what you and your Crane Hire Company have.

My local Boat Chandler has his own Crane and has two 50' long 6" wide lifting strops (the flat nylon tyre) The cost of the crane hire was £60.00.

I borrowed six lengths of timber 17' long 8" x 3" from my local Builders Merchants. These I placed on their flat, three under Number 2 beam and the other three under number 3 beam. To stop these timbers from being pulled in when lifting I nailed, and I mean nailed 4" x 3" timber each side of each hull.

Lifting is done from the inside of the two hulls by taking each strop under the timbers and up through to the Crane making sure that the strops are close into the hulls, thus when you lift no strain at all is put on the hulls.

The Catamaran was then lifted and the lorry backed up under, she will now sit on the 8" x 3" timbers, because of her beam she will not be sitting on the lorry. Each hull will in fact be on each side of the lorry. The lorry I hired was an articulated flat bed 50' long (Hire Charge £30.00)

We are able to drive on to our local beach so she was unloaded below the tide mark. The 4" x 3" timbers were then removed and the 8" x 3" 's removed once she was floating. That is after the Champagne was broken.

Before this operation can be carried out you need to give yourself two to three weeks for the arrangements. I first picked the day, time and tides, and then arranged the Crane and lorry (the three do not always go together) I then telephoned the Department of Transport in London (Tel No: 01–928–7999 – Extension 3327) Abnormal Loads Department for a VR1 form. It is the width that is the problem, you need permission to go on to the highway. They will send you a form which you complete and return. Once this has been approved the Police are instructed and they in turn contact you, and so it goes on, so much for bureaucracy, but you do get a Police Escort which makes you feel very important. Give yourself plenty of time and all will go well, as every Boat Builder will know the cost will vary from area to area and a lot depends on who you know.

I cannot see why this method of lifting cannot be used on other Polycats large or small provided you use the right size timber and strops.

I took many photographs of the whole operation some of which show in detail how it was done.

If I can help anyone, or if anybody is having problems with getting insurance either in building or when finished, please give me a ring – Tel No: 0271 860429 or write to Eric Stallard, 49 West Yelland, Barnstaple, North Devon.

THE TUCKAHOE TO THE CHESAPEAKE

BY Mac Brown

I had a slow trip from Tuckahoe to Cape May. The canal twisted and turned so that there was precious little sailing and the sail would slat so that I finally took it down and didn't try. I had two mishaps that day, I damaged the port bow on a bridge fender and went aground later when I came around a corner and found four markers where only two were on the chart; I should have killed the power and sorted things out. I rowed out an anchor and tried kedging off but the tide was falling too rapidly so I waited for the turn.

I reached Sea Isle City before dark and then things started looking up. Enquiring for a place to tie up my good Samaritan gave me the use of his dock and when I asked for directions to get what I needed for repairs he proceeded to supply me with everything I needed and wouldn't accept any remuneration.

The next morning I repaired the damage and could face the world again. It really hurt my ego more than Chiquita.

I arrived at Cape May to find all the boats I had met at different stages of the trip waiting to dash up the Delaware with an old hand saying that Thursday was the day and that if anyone didn't make it then it might be another week.

I was part of the first exodus on Thursday just as the first glimmer of dawn started to chase away the darkness. By 10 a.m. I was off Fortescue and the wind was falling. There was too much wave action to get good results from motor sailing and thinking I would soon be sailing backwards when the tide changed I decided to push on as far as the Cohansey.

Looking around I saw a large yellow Polycat coming out of the haze. It turned out to be Banana Split – what a beautiful sight.

I sailed on past each stopping place and followed Banana Split into Delaware City. On Friday, after the rainstorms, Waldo took us all to a shopping centre where I laid in supplies for the Chesapeake run if I don't eat them all waiting for good weather.

That afternoon I started through the canal for an anchorage at the west end, but the wind against the tide was raising white caps in the canal and it was slow going – there were winds in a couple of the squalls that I thought stopped me dead. At the railroad bridge the chart showed a side cut (probably part of the old canal) with three feet of water at the entrance and 15 to 20 further in. I moseyed in slowly and dropped my anchor in 15 feet, glad to stop. Today was more of the same only sunny so I stayed put – cleaned the plugs on the motor and ran a power line to the port cabin and put up a light which is an improvement over the flourescent lantern. While at Delaware City I had a good chance to inspect Banana Split and visit with the Sunderlands. I'm so glad I met up with them as with their larger boat they will probably punch through in conditions that I may hesitate to tackle so may not see them again – who knows?

Local New Zealand News:

*I've sold my Ariki to Colin Jolly who now lives abroad and is enjoying his sailing. He used to own a Piver 35' but says there's no comparison in the sailing performance.

*Mike Twiss may be interested in selling his Tangaroa 'Brighteyes'. He is working in Singapore and has very little time for sailing.

*Anthea Goodwin of Clevedon has a nearly-finished 'Hinemoa' for sale. It's a very well built boat with plenty of room.

*Wade Doak featured in the 'Listener' lately. Wade provides some excellent, positive publicity for Wharram cats.

*Charles Trenter has sold his 'Tane' to a fellow resident on Great Barrier. Charles became a minor legend on the island when he was there. He often carried a ton of stores on deck, sailed whatever the weather and frightened hell out of groups of trampers he ferried to and from the island.

*I hope to see Jock McDonald's Pahi 31' soon. He's building on Waiheke, is well on with the hulls (using W.E.S.T.). He plans a mast in each hull with an unstaved rig (like the rig in a Freedom 40').

*The huge Ariki from Kumeu has been launched (George Clifton's boat) – and looks good though I cannot report from first-hand experience. I've never seen a Wharram with more room. It has much higher freeboard, beams in troughs, and long, low, sleek cabin-tops.

*There should be plenty of Pahis around in a few years. There are 42s underway in Invercargill, Christchurch and Auckland, and 31s in Auckland (several) and Christchurch.

*Mike Thomas, from KeriKeri writes: "I'm sticking fairly closely to the plans (he's building a 'Tane'). What do you think of rigging screws v lanyards? Also, how do you fill the gaps between rudders and skegs? I'm going to stick to the original sail-plan. I'm thinking of a 7.5 H.P. Mercury outboard. Much of the work is done – slatted decks, cabins, hatches, mast, sails.

*I 'discovered' a Tane just round the road – almost ready for the water. The builder, John Heslop, has made a good job and total cost, spread over three years, is just $2,000! John has extensive sailing experience including a U.K. – N.Z. sailing trip.

*The big 'Tehini' build in Tauranga and which features in recent newsletters is up for sale again. Mr Brian Easte, who has got the boat nearly ready for sailing, is looking for a buyer.

*Nigel Paine of Nelson hopes to get his ORO afloat about July.

Cartoons by: Stewart Courtnell

Cooks Corner

THE STAFF OF LIFE

Nothing can beat the smell of freshly baked bread ascending from the galley to make the helmsman's mouth water. But breadmaking is a long process and subsitutes that are put together quickly can be just as appetizing.

The following recipes, with some variations, are taken from Maralyn Bailey's "*The Galley Handbook*", illustrated by Mike Peyton and published by Nautical Publishing Company, Lymington, Hants, at £3.25. In addition to many recipes, this excellent book gives tips on provisioning and stowage. Regulo settings and times are given for those fortunate enough to own an oven. My collapsible 'biscuit tin' galvanized box oven worked well over a burner, providing I rotated the two shelves to prevent burning. The times for this method of cooking are given in brackets.

SCONE BREAD

Flour	10oz)	
Baking powder	3 tsp)	Place in a mixing bowl
Salt	a pinch)	
Margarine	2oz	Rub in the flour
Milk		Add sufficient to make a firm dough.

Knead the dough gently until it looks smooth. Place in a greased dish and flatten with the hand until it is about 2 inches thick.

Make another mix, if you wish, adding:

Sugar	2 oz)	Add to flour, baking powder
Currants	2 oz)	and salt in the bowl, then
Allspice	a pinch)	proceed as above.

Bake both scones in a moderate oven, Regulo 4, for 15/20 minutes. (40 minutes in box oven, rotating shelves).

HARD TACK

Aptly named but it is ideal for a quick lunch with meat or fish spread, sauerkraut and pickles.

Flour	12 oz)	
Baking powder	2 tsp)	Place in a mixing bowl
Sugar	2 tsp)	
Salt	a pinch)	
Water		Add sufficient to make a stiff dough.

Roll out dough on a floured board until it is about ¼ inch thick. Bake on a low shelf of a moderate oven, Regulo 4, for 12/15 minutes. (20 minutes in box oven).

CHAPATTIS

A flat bread traditionally served with curry but good for breakfast with a fried egg or spread with marmalade.

Flour	9 oz)	
Salt & Pepper	a pinch)	Place in a mixing bowl.
Dried Yeast	3 tsp)	
Water		Add sufficient to make a stiff dry dough.

Knead the dough in the bowl for a couple of minutes. Put the dough on to a floured surface and divide into 10/12 equal parts and shape into small balls.

Roll out each piece into a thin oblong, 2 or 3 will fit into your frying pan.

Cooking oil	1 tsp	Heat in the frying pan until hot.

Fry 2 or 3 of the dough pieces together quickly, turning once. Serve immediately or pile the chapattis on a warm plate and cover with a cloth to keep warm.

Herbs or grated cheese etc., may be added at the mixing stage. Chapattis tend to go rubbery when cold but are still edible.

BEIGNETS – rather like crumpets

Flour	6 oz)	
Baking powder	4 tsp)	Place in a mixing bowl
Salt	a pinch)	
Water		Add enough to make a thick batter which will just drop off the spoon.
Cooking oil	1 tsp	Heat in the frying pan until hot.

Drop 1 tablespoon of mixture for each beignet into the pan. It should be possible to cook 3 or 4 at a time.

When the surface begins to dry to a sponge-like texture, flip over to cook the other side briefly.

Good on their own or with jam, Marmite, eggs or grilled tinned meat.

Marylyn Ford
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